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Notes on *Carabus* (*Teratocarabus*) *azrael* (Coleoptera, Carabidae) with Description of a New Subspecies

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Abstract *Carabus mizunumaianus* IMURA is downgraded to a subspecies of *Carabus* (*Teratocarabus*) *azrael* SEMENOV-TIAN-SHANSKIJ et ZNOJKO, and a new subspecies of the latter is described from the southern part of Liaoning Province, Northeast China, under the name of *gaizhouensis* nov. The male of the same species is described for the first time.

Carabus azrael is one of the most poorly known species of the genus *Carabus* (s. lat.), described by SEMENOV-TIAN-SHANSKIJ et ZNOJKO (1932, p. 215) based on a single female specimen collected from San-dzjao-dze (Sandaohezi at present, about 75 km distant to the north from Mudanjiang of Southeast Heilongjiang Province, Northeast China). It is a very strange carabid beetle in having a combination of marked cychrization of the mouth-parts and dark purplish colour of the dorsal surface with the elytral margins metallic reddish, and a new subgenus was erected for it by the same authors at the same time, under the name of *Teratocarabus*. Later, in 1991 (p. 277), I described a taxon *Carabus mizunumaianus* as a new species belonging to the subgenus *Cychrostomus*, also based on a single female specimen from the eastern part of Liaoning Province. In 1994, I had an opportunity to make a comparative study between the holotypes of both the species while visiting the Zoological Institute of the Academy of Sciences, St. Peterburg, and realised that my species is conspecific with *C. azrael* though slightly different in details. The former is therefore downgraded to a subspecies of the latter in the first section of this paper. Anyway, both of these taxa seem to be very rare, and no other finding has been reported up to the present. Needless to say, the male of this strange carabid beetle has never been introduced to the science.

Recently, through the courtesy of Mr. Kiyoyuki MIZUSAWA, I was able to examine a short series of the same species collected from the eastern part of Gaizhou situated in South Liaoning. The series contained a male which must be the first for the species, and besides, the Gaizhou population was apparently different from the two known subspecies mainly in the shape of the pronotum. In the second section of this paper, I am going to describe it as a new subspecies,

with description of the male including the detailed findings of the genital organ.

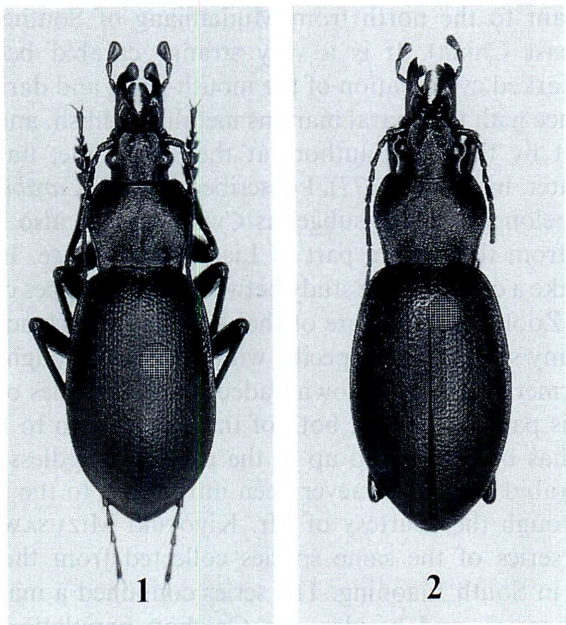
I am grateful to Dr. Shun-Ichi UÉNO of the National Science Museum, Tokyo, for his kindness in revising the manuscript of this paper. My deep gratitude is due to Dr. O. L. KRYZHANOVSKIJ of the Zoological Institute of the Academy of Sciences, St. Peterburg, for kindly permitting me to examine the holotype of *Carabus azrael*. I also thank Mr. Kiyoyuki MIZUSAWA for his kind assistance in giving me an opportunity to examine the specimens necessary for this study.

1. ***Carabus* (*Teratocarabus*) *azrael mizunumaianus*** IMURA, stat. nov.

Carabus (*Cychrostomus*) *mizunumaianus* IMURA, 1991, Elytra, Tokyo, **19**, p. 277; type locality: Shuidong, Xiaoshi, Benxi Xian, East Liaoning, Northeast China.

Closely allied to the nominotypical subspecies, but discriminated from it mainly by having differently shaped pronotum, which is a little more transverse (PW/PL 1.48), with the widest part being situated a little more backwards.

Specimen examined. 1♀ (holotype of *Carabus mizunumaianus*), Shuidong, Xiaoshi, Benxi Xian, East Liaoning, Northeast China, 12～18–VII–1990, in coll. NSMT.



Figs. 1–2. *Carabus* (*Teratocarabus*) *azrael gaizhouensis* IMURA, subsp. nov., from Gaizhou, South Liaoning, Northeast China; 1, ♂(allotype); 2, ♀(holotype).

2. ***Carabus* (*Teratocarabus*) *azrael gaizhouensis*** IMURA, subsp. nov.

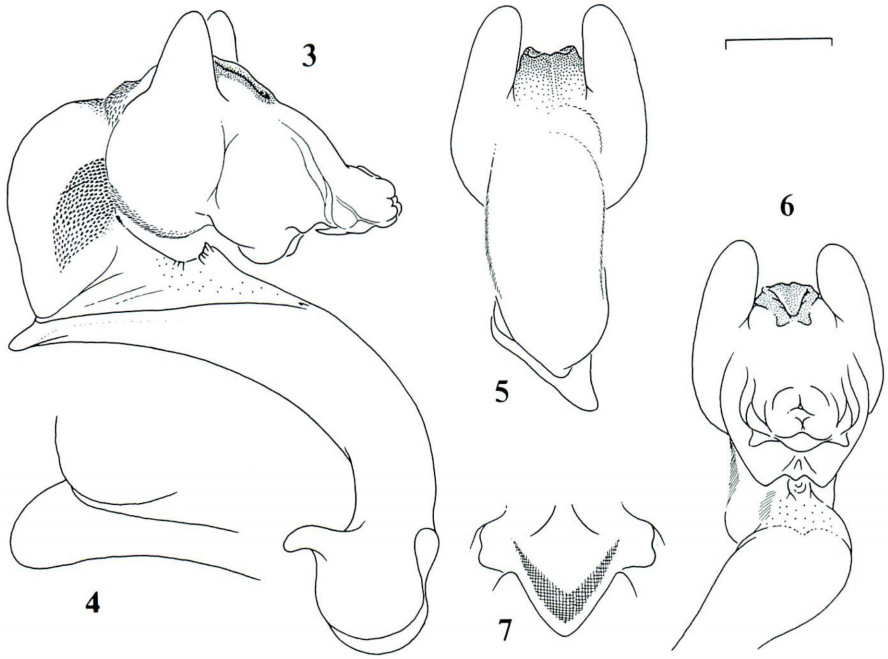
(Figs. 1–7)

Length: 23.0–23.5 mm.

This new subspecies is distinguished from the nominotypical subspecies and subsp. *mizunumaianus* IMURA by the following respects: pronotum slenderer, PW/PL 1.34–1.35 in female (1.43 in the nominotypical subspecies, and 1.48 in subsp. *mizunumaianus*); hind angles of pronotum longer and more triangularly protruded posteriad; elevated parts of elytral intervals a little wider and a little more strongly convex above; striae between intervals more weakly punctate.

Male. In comparison with female, apical segments of palpi more widely dilated, antennae a little longer, reaching basal third of elytra, shoulders a little more effaced, sides of elytra less roundly arcuate especially in basal halves, and the widest part of elytra is situated a little more backwards. Basal three segments of foretarsus dilated, with hair pads on the ventral surface.

Male genitalia. Aedeagus rather simple in outline, with the apical lobe short, robust, widely rounded at the tip, and rather strongly compressed; ostium lobe very small, unilobate, and not strongly protruded dorsad; paraligula not



Figs. 3–7. Male genital organ of *Carabus* (*Teratocarabus*) *azrael gaizhouensis* IMURA, subsp. nov.; 3, aedeagus with fully everted endophallus in right ventro-lateral view; 4, apical part of aedeagus in right lateral view; 5, endophallus in posterior view; 6, ditto in anterior view; 7, gonoporal plate in ventral view. Scale: 1 mm for 3, 5, 6; 0.5 mm for 4, 7.

developed at all; neither basal lateral lobes nor median lobe developed on endophallus, though a pair of vertical lobes at the sides of praeputial pad (I call them parapraeputial lobes) are strongly and symmetrically developed; praeputial pad not so remarkably modified, though rather strongly pigmented and slightly sclerotized along the mid-line; aggonoporius not strongly sclerotized but obviously protruded ventrad at the centre to form a triangularly shaped gonoporal plate with wide V-shaped mild pigmentation.

Type series. Holotype: ♀, Chi Shan, near Gaizhou, S. Liaoning, NE China, 1995, in coll. NSMT. Paratypes (including allotype): 1♂, 1♀, Shi-zhi-jie, E of Gaizhou, S. Liaoning, NE China, 13–VII–1995, in coll. K. MIZUSAWA.

Notes. Detailed structure of the male genital organ of this unique carabid beetle suggests that it belongs to the Multistriati (sensu ISHIKAWA, 1978), or to the Lobifera (DEUVE, 1994), and is most closely allied to the subgenus *Cychrostomus* REITTER of Qinghai and Gansu, as has readily been expected from the similarity in the external features.

要　　約

井村有希：ムラサキホソキバオサムシに関する知見と雄を含む1新亜種の記載．—— ムラサキホソキバオサムシ *Carabus* (*Teratocarabus*) *azrael* SEMENOV-TIAN-SHANSKIJ et ZNOJKO は，中国黒龙江省の牡丹江市北方にある三道河子 Sandaohezi から得られた1♀の標本にもとづいて記載されたもので，中国産オサムシのなかでももっとも知見の少ない種のひとつである．筆者は1994年，サンクト・ペテルブルクの科学アカデミー動物学研究所を訪れ，本種の正基準標本を検することができた．その結果，辽宁省東部から新種として記載された *C. mizunumaianus* IMURA は，これと同じものであろうという結論に達したので，本論文の第1節において前者を後者の亜種に降格した．また，ごく最近，辽宁省南部の盖州近郊から，これら2亜種とは形態的に異なる集団が発見されたので，第2節においてこれを新亜種として記載するとともに，これまで未知であった本種の♂に関する記載を与えた．

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SEMENOV-TIAN-SHANSKIJ, A., & D. ZNOJKO, 1932. Novye dannye k poznaniiou roda *Carabus* (L.) (Coleoptera, Carabidae), IV. *Dokl. Akad. Nauk. SSSR*, **1932**: 215–218.

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A Revised Classification of the Major Divisions and Subdivisions of *Carabus* (s. lat.) (Coleoptera, Carabidae)

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Abstract Major divisions and subdivisions of the genus *Carabus* (s. lat.) are revised and a new classification is proposed with descriptions of three new subdivisions, i.e., Latitarsi nov., Arciferi nov. and Procrustimorphi nov. Japanese names of all the subdivisions and subgenera are given.

The most recent classification of the supraspecific categories belonging to the genus *Carabus* (s. lat.) is that proposed by DEUVE (1994). His system is constructed on the basis of endophallic characters of the male genital organ, the fundamental idea of which has already been established by ISHIKAWA (1973, '78, '79). The French author divided the genus into five "subdivisions", namely, Spinulati, Digitulati (=genus *Carabus* sensu ISHIKAWA, 1973), Lipastromorphi (=genus *Lipaster* sensu ISHIKAWA, 1978), Archicarabomorphi (=genus *Ischnocarabus* sensu ISHIKAWA, 1979) and Lobifera (=Multistriati sensu ISHIKAWA, 1978). Through my recent study on the taxonomy and phylogeny of carabid beetles, I have been able to examine all the subgenera now adopted by most authors and nearly all the hitherto known species of the genus on a worldwide basis, and have come to the conclusion that DEUVE's system still involves some basic problems as mentioned below, and that there still is room for improvement or modification, at least partly.

In the first place, the five "subdivisions" consisting of his system are not completely equivalent in their taxonomical value. Three of them, Digitulati, Lipastromorphi and Archicarabomorphi, are phylogenetically very close to one another, and should be treated as a well-defined unit, as was unified by ISHIKAWA (1978, '79) into a single division, Carabogenici. The Lobifera in DEUVE's sense is a group to be placed at a little higher rank than these three "subdivisions". Secondly, I strongly hesitate to place the Spinulati at the beginning of a catalogue. Although most authors after BREUNING have put this group at the first section of check lists merely according to its "custom usage", it is doubtless more closely allied to the Multistriati (sensu ISHIKAWA, 1978) or to the Lobifera, than to the Carabogenici, not only from the external and genitalic morphology but also from the larval characters and the molecular biological viewpoint based on analysis of mitochondrial DNA (cf. SU, 1995, pp. 18–19; KASHIWABARA, 1995, pp.

119–123). It should therefore be placed at the side of, or be regarded as a member of the Multistriati. Thirdly, the Lobifera in DEUVE's sense contains too many subgenera that seem more or less randomly enumerated, and whose phylogenetic relationships are not clearly indicated. In my opinion, it should be separated into several subdivisions mainly on the basis of basic characters of the male genital organ.

In conclusion, I propose to divide the genus *Carabus* (s. lat.) at first into two large divisions, the Carabogenici and the Multistriati. The former contains three subdivisions, Digitulati, Lipastromorphi and Archicarabomorphi, each of which is almost equivalent to that proposed by DEUVE, though somewhat different in the construction and sequence of the component subgenera. The latter is separated into five subdivisions: the first is the Spinulati which is downgraded to one of the subdivisions of the Multistriati; the second is a well-defined complex composed of *Hemicarabus* and *Homoeocarabus*, which has been termed the Crenolimbi by REITTER (1896, p. 55); the third is a complex defined by ISHIKAWA (1984) for a single genus, *Chaetocarabus*, and I call it Arciferi nov., after its characteristically developed ligulum, named "arculus" (see description of the subdivision in the following lines); the remaining large part is divided into two more subdivisions, Latitarsi nov. and Procrustimorphi nov., though the two groups seem to be very closely allied to each other.

In the first section of the present paper, I am going to give descriptions of three new subdivisions, then I will propose a new classification of my own in the latter half. For the convenience of further studies, above all those to be written in Japanese, I will give the Japanese names for all the subdivisions and subgenera, most of which are proposed for the first time in this paper. In other articles of mine now under preparation, I am going to give detailed descriptions of all the higher taxa and keys to them, as well as a discussion on the phylogenetic relationship among these higher taxa.

Before going further, I wish to express my deep gratitude to Dr. Shun-Ichi UÉNO of the National Science Museum (Nat. Hist.), Tokyo, not only for kindly revising the manuscript but also for giving valuable suggestions to my study.

Description of New Subdivisions

Subdivision **Latitarsi** nov.

Head almost normal in appearance, with the mandibles neither remarkably elongated nor modified; retinaculum of right mandible narrow, with the anterior tooth subequal in length to the posterior; penultimate segment of labial palpus basically bisetose; median tooth of mentum not remarkably modified, and submentum basically setaceous; male antennae basically with thiridium on the ventral surface; elytral sculpture variable from triploide to heptaploide, or sometimes indicated by multiply divided rows of granules; basal four segments of male foretarsus dilated, and basically with hair pads on the ventral surface (the fourth segment usually not remarkably smaller in size than the basal three); male genital organ with ostium lobe basically bilobate, though rarely vestigial; ligulum usually indicated by an assemblage of pigmented gran-

ules, though rarely developed to a plate-like sclerite; larva with quadricuspidate epistoma.

Containing 17 subgenera distributed in Eurasia, North Africa and North America.

Subdivision **Arciferi** nov.

Genus *Chaetocarabus*: ISHIKAWA, 1984, Kontyû, Tokyo, **52**, pp. 94–109.

Mandible long and slender, usually roundly arcuate inwards though rarely deformed in the outline, with the inner margin of left one exceptionally double-edged in the subgenus *Platycarabus*; retinaculum of right mandible remarkably bifurcate, with the anterior tooth subequal in length to, or a little shorter than the posterior; median tooth of mentum not remarkably modified, and submentum setaceous; male antennae without thiridium on the ventral surface; elytral sculpture basically triploide; the fourth segment of male foretarsus narrower than the basal three, and sometimes lacking hair pads on the ventral surface; ostium lobe basically unilobate, though variable in shape according to the species, from almost bilobate condition to vestigial; ligulum situated at the right side near the base of endophallus, strongly developed, with the apex free from the membraneous wall and sharply pointed, and the outer margin rather sharply ridged to form a crescent-shaped sclerite (I call it "arculus", a term newly proposed in this paper); endophallus sometimes with median lobe (=basal lobe sensu ISHIKAWA, 1984), and aggonoporius variable both in shape and degree of sclerotization according to the species; larva with quadricuspidate or rostrilabral epistoma.

Containing 4 subgenera distributed in Europe and Asia Minor.

Subdivision **Procrustimorphi** nov.

Head often showing a tendency of hypertrophy or cychrization, with mandibles relatively elongate and gently arcuate inwards in most species; retinaculum of right mandible often modified, with the anterior tooth not equal in length to the posterior; median tooth of mentum usually well-developed and often protruding ventrad; thiridium never recognised on the ventral surface of male antennae; elytra basically triploide, and often showing a striking development in the sculptural condition; fourth segment of male foretarsus basically smaller than the basal three, and often lacking hair pads on the ventral surface; ostium lobe usually unilobate, though sometimes bifurcate at the tip, and very rarely bilobate or even vestigial; ligulum constantly indicated by an assemblage of pigmented granules; pre- or parapraeputial pads often well-developed; praeputial pad and aggonoporius often modified both in shape and degree of sclerotization; larva with rostrilabral epistoma.

Containing 53 subgenera distributed in Eurasia, North Africa and North America.

Classification

Genus *Carabus* LINNÉ, 1758　オサムシ属
I. Division Carabogenici　真正オサムシ群
　I–1. Subdivision Digitulati DEUVE, 1991　骨片オサムシ亜群
　　I–1–(1) Subgenus *Carabus* LINNÉ, 1758　アカガネオサムシ亜属
　　I–1–(2) Subgenus *Eucarabus* GÉHIN, 1885　ツヤオサムシ亜属
　　I–1–(3) Subgenus *Isiocarabus* REITTER, 1896　タイリクオオオサムシ亜属
　　I–1–(4) Subgenus *Ohomopterus* REITTER, 1896　オオオサムシ亜属
　I–2. Subdivision Lipastromorphi DEUVE, 1991　カザリオサムシ亜群
　　I–2–(1) Subgenus *Morphocarabus* GÉHIN, 1885　カザリオサムシ亜属
　　I–2–(2) Subgenus *Mimocarabus* GÉHIN, 1885　カタビロカザリオサムシ亜属
　　I–2–(3) Subgenus *Cryptocarabus* REITTER, 1896　ツブカザリオサムシ亜属
　　I–2–(4) Subgenus *Ophiocarabus* REITTER, 1896　ドウガネカザリオサムシ亜属
　　I–2–(5) Subgenus *Lipaster* MOTSCHULSKY, 1865　オオズカザリオサムシ亜属
　　I–2–(6) Subgenus *Cyclocarabus* REITTER, 1896　ツヤヒョウタンオサムシ亜属
　I–3. Subdivision Archicarabomorphi DEUVE, 1991　マルオサムシ亜群
　　I–3–(1) Subgenus *Archicarabus* SEIDLITZ, 1887　マルオサムシ亜属
　　I–3–(2) Subgenus *Acrocarabus* LAPOUGE, 1930　キンマルオサムシ亜属
　　I–3–(3) Subgenus *Ischnocarabus* KRAATZ, 1877　ツツオサムシ亜属
　　I–3–(4) Subgenus *Gnathocarabus* DEUVE, 1991　キバヒョウタンオサムシ亜属
II. Division Multistriati　多条オサムシ群
　II–1. Subdivision Spinulati ISHIKAWA, 1973　トゲオサムシ亜群
　　II–1–(1) Subgenus *Apotomopterus* HOPE, 1838　トゲオサムシ亜属
　　II–1–(2) Subgenus *Taiwanocarabus* IMURA et M. SATÔ, 1989　マスゾウトゲオサムシ亜属
　　II–1–(3) Subgenus *Limnocarabus* GÉHIN, 1876　マークオサムシ亜属
　　II–1–(4) Subgenus *Euleptocarabus* NAKANE, 1956　アキタクロナガオサムシ亜属
　II–2. Subdivision Crenolimbi REITTER, 1896　セアカオサムシ亜群
　　II–2–(1) Subgenus *Hemicarabus* GÉHIN, 1885 セアカオサムシ亜属
　　II–2–(2) Subgenus *Homoeocarabus* GÉHIN, 1885　セスジアカガネオサムシ亜属
　II–3. Subdivision Latitarsi IMURA, nov.　ダルマオサムシ亜群
　　II–3–(1) Subgenus *Tomocarabus* REITTER, 1896　ヒメダルマオサムシ亜属
　　II–3–(2) Subgenus *Stephanocarabus* IMURA, 1995　カンスーダルマオサムシ亜属

II–3–(3) Subgenus *Scambocarabus* REITTER, 1896 マルダルマオサムシ亜属
II–3–(4) Subgenus *Semnocarabus* REITTER, 1896 テンシャンダルマオサムシ亜属
II–3–(5) Subgenus *Ulocarabus* REITTER, 1896 タジクダルマオサムシ亜属
II–3–(6) Subgenus *Pachystus* MOTSCHULSKY, 1865 ダルマオサムシ亜属
II–3–(7) Subgenus *Eurycarabus* GÉHIN, 1876 ハバビロオサムシ亜属
II–3–(8) Subgenus *Nesaeocarabus* BEDEL, 1895 カナリアオサムシ亜属[1)]
II–3–(9) Subgenus *Rhipocarabus* REITTER, 1896 シワマルオサムシ亜属
II–3–(10) Subgenus *Autocarabus* SEIDLITZ, 1887 キンイロオサムシ亜属
II–3–(11) Subgenus *Mesocarabus* THOMSON, 1875 ヒサゴオサムシ亜属
II–3–(12) Subgenus *Tanaocarabus* REITTER, 1896 ホクベイミヤマオサムシ亜属
II–3–(13) Subgenus *Pachycarabus* GÉHIN, 1876 ニブイロオサムシ亜属
II–3–(14) Subgenus *Oreocarabus* GÉHIN, 1876 ミヤマオサムシ亜属
II–3–(15) Subgenus *Rhigocarabus* REITTER, 1896 ドウガネオサムシ亜属
II–3–(16) Subgenus *Leptocarabus* GÉHIN, 1885 クロナガオサムシ亜属
II–3–(17) Subgenus *Meganebrius* KRAATZ, 1895 マルクビオサムシ亜属

II–4. Subdivision Arciferi IMURA, nov. ヒラタオサムシ亜群
II–4–(1) Subgenus *Platycarabus* MORAWITZ, 1886 ヒラタオサムシ亜属
II–4–(2) Subgenus *Chaetocarabus* THOMSON, 1875 キバナガヒラタオサムシ亜属
II–4–(3) Subgenus *Heterocarabus* MORAWITZ, 1886 ヒメツヤヒラタオサムシ亜属
II–4–(4) Subgenus *Hygrocarabus* THOMSON, 1875 ミズベオサムシ亜属

II–5. Subdivision Procrustimorphi IMURA, nov. ヨロイオサムシ亜群
II–5–(1) Subgenus *Eotribax* SEMENOV, 1898 テンシャンチビオサムシ亜属
II–5–(2) Subgenus *Alipaster* REITTER, 1896 アラメチビオサムシ亜属
II–5–(3) Subgenus *Cechenotribax* SEMENOV-TIAN-SHANSKIJ et ZNOJKO, 1932 ケシオオズオサムシ亜属
II–5–(4) Subgenus *Cratocarabus* REITTER, 1896 ツブオオズオサムシ亜属
II–5–(5) Subgenus *Cratocephalus* KIRSCH, 1859 アラメオオズオサムシ亜属
II–5–(6) Subgenus *Cratocechenus* REITTER, 1896 コブスジオオズオサムシ亜属
II–5–(7) Subgenus *Leptoplesius* REITTER, 1898 ホソムネオオズオサムシ亜属

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1) A well sclerotized process on the ventral wall of the endophallus of this subgenus is not considered to be homologous with the digitulus, as has been pointed out by ISHIKAWA (1991, p. 225). It is therefore classified into the Multistriati, together with the subgenus *Eurycarabus*, both of which were placed by DEUVE in the Digitulati.

II–5–(8) Subgenus *Cratophyrtus* REITTER, 1896　キバオオズオサムシ亜属
II–5–(9) Subgenus *Pantophyrtus* THIEME, 1881　ホオトゲオオズオサムシ亜属
II–5–(10) Subgenus *Cechenochilus* MOTSCHULSKY, 1846　カフカスオオズオサムシ亜属
II–5–(11) Subgenus *Iniopachys* SOLIER, 1848　イベリアオオズオサムシ亜属
II–5–(12) Subgenus *Tribax* FISCHER, 1817　アトキリオサムシ亜属
II–5–(13) Subgenus *Neoplectes* REITTER, 1885　オオズアトキリオサムシ亜属
II–5–(14) Subgenus *Microplectes* REITTER, 1896　チビアトキリオサムシ亜属
II–5–(15) Subgenus *Archiplectes* GOTTWALD, 1982　ニジアトキリオサムシ亜属
II–5–(16) Subgenus *Sphodristocarabus* GÉHIN, 1885　コブスジオサムシ亜属
II–5–(17) Subgenus *Ctenocarabus* THOMSON, 1875　スジバネオサムシ亜属
II–5–(18) Subgenus *Cathoplius* THOMSON, 1875　クチボソオサムシ亜属
II–5–(19) Subgenus *Oxycarabus* SEMENOV, 1898　サメハダオサムシ亜属
II–5–(20) Subgenus *Imaibius* BATES, 1889　オニオサムシ亜属
II–5–(21) Subgenus *Imaibiodes* DEUVE, 1990　ニセオニオサムシ亜属
II–5–(22) Subgenus *Deroplectes* REITTER, 1895　パミールオサムシ亜属
II–5–(23) Subgenus *Apoplesius* DEUVE, 1990　アトキリモドキ亜属
II–5–(24) Subgenus *Relictocarabus* LEDOUX, 1984　アフリカアトキリモドキ亜属
II–5–(25) Subgenus *Goniocarabus* GÉHIN, 1885　キバナガオサムシ亜属
II–5–(26) Subgenus *Axinocarabus* MORAWITZ, 1886　ツヤキバナガオサムシ亜属
II–5–(27) Subgenus *Acathaicus* REITTER, 1896　マンボウオサムシ亜属
II–5–(28) Subgenus *Cathaicus* BATES, 1870　コウガオサムシ亜属
II–5–(29) Subgenus *Eupachys* CHAUDOIR, 1857　クギヌキオオズオサムシ亜属
II–5–(30) Subgenus *Cychrostomus* REITTER, 1896　ホソキバオサムシ亜属
II–5–(31) Subgenus *Teratocarabus* SEMENOV-TIAN-SHANSKIJ et ZNOJKO, 1932　ムラサキホソキバオサムシ亜属
II–5–(32) Subgenus *Cephalornis* SEMENOV, 1889　セダカモドキ亜属
II–5–(33) Subgenus *Eocechenus* SEMENOV-TIAN-SHANSKIJ et ZNOJKO, 1932　タカネオオズオサムシ亜属
II–5–(34) Subgenus *Cryptocechenus* SEMENOV, 1898　アカアシオオズオサムシ亜属
II–5–(35) Subgenus *Calocarabus* SEMENOV, 1887　キンスジオオズオサムシ亜属
II–5–(36) Subgenus *Neoplesius* REITTER, 1896　チベットオサムシ亜属
II–5–(37) Subgenus *Pseudocranion* REITTER, 1896　ニセキンオサムシ亜属

II–5–(38) Subgenus *Shunichiocarabus* IMURA, 1995　コブキバオサムシ亜属
II–5–(39) Subgenus *Pseudocoptolabrus* REITTER, 1896　ヌバタマキンオサムシ亜属
II–5–(40) Subgenus *Pagocarabus* MORAWITZ, 1886　マンダラオサムシ亜属[2)]
II–5–(41) Subgenus *Megodontoides* DEUVE, 1991　オオズマンダラオサムシ亜属
II–5–(42) Subgenus *Aristocarabus* SEMENOV, 1896　ニシキオサムシ亜属
II–5–(43) Subgenus *Eccoptolabrus* SEMENOV, 1898　ヒメカブリモドキ亜属
II–5–(44) Subgenus *Lasiocoptolabrus* IMURA, 1993　アラメカブリモドキ亜属
II–5–(45) Subgenus *Coptolabrus* SOLIER, 1848　カブリモドキ亜属
II–5–(46) Subgenus *Damaster* KOLLAR, 1836　マイマイカブリ亜属
II–5–(47) Subgenus *Acoptolabrus* MORAWITZ, 1886　クビナガオサムシ亜属
II–5–(48) Subgenus *Megodontus* SOLIER, 1848　キンオサムシ亜属
II–5–(49) Subgenus *Procerus* DEJEAN, 1826　イボハダオサムシ亜属
II–5–(50) Subgenus *Macrothorax* DESMAREST, 1850　ムナビロオサムシ亜属
II–5–(51) Subgenus *Chrysocarabus* THOMSON, 1875　コガネオサムシ亜属
II–5–(52) Subgenus *Procrustes* BONELLI, 1809　ヨロイオサムシ亜属
II–5–(53) Subgenus *Lamprostus* MOTSCHULSKY, 1865　トックリオサムシ亜属

要　約

井村有希：オサムシ属の上位分類体系に関する再検討．—— DEUVE (1994) により提唱された広義のオサムシ属の上位分類体系における問題点を指摘したうえで，筆者独自の見解に基づき，その再編成を試みた．その結果，オサムシ属をまず真正オサムシと多条オサムシの2群に分け，前者に3亜群，後者に5亜群（うち，みっつの亜群をあらたに記載）を認める新しい分類体系を提唱した．本論文ではさらに，今後，和文によって記される類書への一助として，世界のオサムシ属に含まれるすべての亜群と亜属に対し和名を与えた．

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2) The subgenus *Pagocarabus* in the present sense contains only a few species allied to the type species (*Carabus crassesculptus*), i.e., *C. promachus*, *C. poschingerianus*, etc., and the other members that have been traditionally placed in the same subgenus are transferred to *Neoplesius* which is considered distinct as a subgenus.

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Elytra, Tokyo, **24** (1): 12, May 15, 1996

A New Record of *Aceraius alutaceosternus* (Coleoptera, Passalidae) from Sumatra

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Aceraius alutaceosternus was described by KUWERT (1898) from the Malay Peninsula. Later, GRAVELY (1918) recorded it from the Malay Peninsula and Borneo.

Recently, we had an opportunity to examine a long series of *Aceraius* specimens from Sumatra and found two specimens of *A. alutaceosternus* among them. This is the first record of *A. alutaceosternus* from Sumatra.

Specimens examined. *Aceraius alutaceosternus* KUWERT: 1♀, Harau Valley, Paya Kumbuh, Sumatra, Morlis ELIS leg.; 1♂, Sibolangit 800 m in altitude, Sumatra, II–1995, Kazuhisa FUJITA leg.

Distribution. Malay Peninsula, Sumatra (new record), Borneo.

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A New Humicolous Species of the *Stevensius* Complex (Coleoptera, Trechinae) from Western Yunnan, Southwest China[1)]

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Abstract A new humicolous species of the carabid subfamily Trechinae is described from the alpine zone of the Diancang Shan Mountains in western Yunnan, Southwest China. It is tentatively placed in the genus *Deuveotrechus* of the *Stevensius* complex, though generic classification of this trechine group needs a thorough revision.

In the autumn of 1993, a strange species of trechine beetle was discovered by myself on Mt. Zhonghe Feng of the Diancang Shan Mountains stretching in the Dali area of western Yunnan, Southwest China, and was described under the name *Junnanotrechus microps* (UÉNO & YIN, 1993, p. 358, figs. 1–3). It was found at an altitude of 2,620 m, or at the lower periphery of the subalpine zone. Unfortunately, we were unable to make thorough investigation of higher places then because of unusually bad weather, though I once climbed up to the alpine zone.

Two years later, I was given an opportunity to make a faunal survey of the mountains once again, and succeeded in taking ample litter samples in the alpine zone. Nine specimens of a trechine beetle were sorted out from these samples and three more specimens of the same species were collected from beneath stones in nearby places. From this collection, it has become apparent that the alpine zone of the Diancang Shan Mountains harbours at least a new species of the *Stevensius* complex, which is utterly different from *Junnanotrechus* occurring at a lower elevation of the same mountain range.

This newly obtained species looks similar to *Deuveotrechus gregoryi* (JEANNEL, 1937, p. 87, fig. 8), but superficially varies towards *Queinnectrechus* (DEUVE, 1992 a, p. 354) in the configuration of its pronotal hind angles (cf. UÉNO, 1995, pp. 94–99). Besides, it is so strikingly different from *Deuveotrechus yuae* (DEUVE, 1992 b, p. 171, figs. 1, 12; UÉNO, 1995, p. 100, figs. 4–5), the type of the genus, in the conformation of its male genitalia, that its attribution to *Deuveotrechus* can be

1) This study is supported by the Grant-in-aid No. 07041131 for Field Research of the Monbusho International Scientific Research Program, Japan.

disputed. Unfortunately, *D. gregoryi* has been known from a single female, and so far as concerned with the prothoracic configuration, it is no doubt closer to *D. yuae* than to the present species. It is, however, undesirable to erect a new genus for the Diancang Shan species solely on the basis of its genitalic peculiarity, especially under the situation that aedeagal characters of *D. gregoryi* remain unknown.

In the present paper, therefore, I am going to place the new species tentatively in *Deuveotrechus* and to name it *D. yinae*, leaving the conclusive determination of its true affinity for future investigations. The abbreviations used herein are the same as those explained in previous papers of mine.

I wish herewith to express my deep indebtedness to the members of the 1995 expedition of the Sino-Japanese cooperative study on the soil fauna of Southwest China, above all to Professor YIN Wen-ying of the Shanghai Institute of Entomology and Professor ZHANG Han-yun of the Kunming Branch, Academia Sinica, for their kind help extended to me during the expedition. Hearty thanks are also due to Professor YU Peiyu of the Institute of Zoology, Academia Sinica, Beijing, for her kind help in the course of this study.

Deuveotrechus yinae S. UÉNO, sp. nov.

(Figs. 1–3)

Length: 3.50–4.00 mm (from apical margin of clypeus to apices of elytra).

Similar in many respects to *D. gregoryi* (JEANNEL) from Kari (=Geng-li) in northwestern Yunnan, but smaller and less convex on dorsum, with larger prothorax whose basal area behind ante-basal sinuation of lateral sides is evidently longer mainly due to acutely protrudent hind angles.

Body short and broad, constricted between prothorax and hind body; surface glabrous and polished on both dorsum and venter; microsculpture practically vanished altogether, vestiges of fine transverse lines being discernible in some unspecified portions; inner wings absent. Colour blackish brown to black, anterior part of head, margins of each elytron, and epipleura almost always brownish, vertex, apical part and lateral margins of pronotum, and basal portions of elytra often also brownish; buccal appendages, antennae, and legs brown to dark brown.

Head wide, depressed above, with deep frontal furrows widely divergent in front and behind, and sometimes obtusely subangulate at middle; frons and supraorbital areas moderately convex, the latter distinctly foveolate at the bases of anterior supraorbital setae, whose mutual distance is, though variable, usually a little larger than that of the posterior; eyes somewhat variable in both size and convexity, though always small and flat, distinctly faceted; genae gently convex and perfectly glabrous, a half to two-thirds as long as eyes; neck fairly wide, neck constriction distinct at the sides; labrum transverse, anteriorly dilated, and rather deeply emarginate at apex; mandibles stout, briefly and sharply hooked at apices,

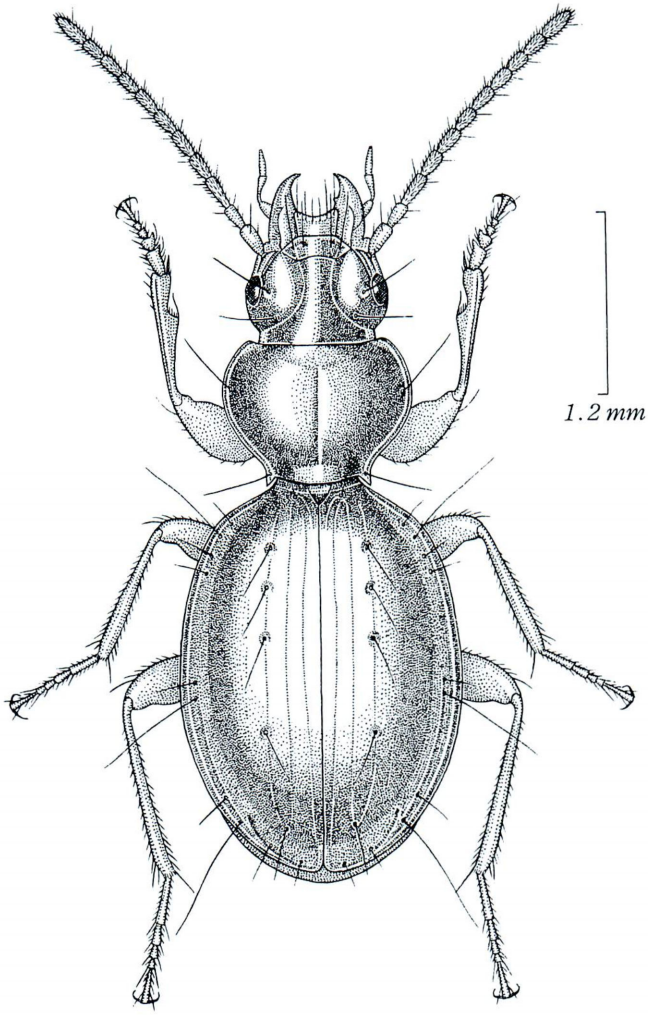


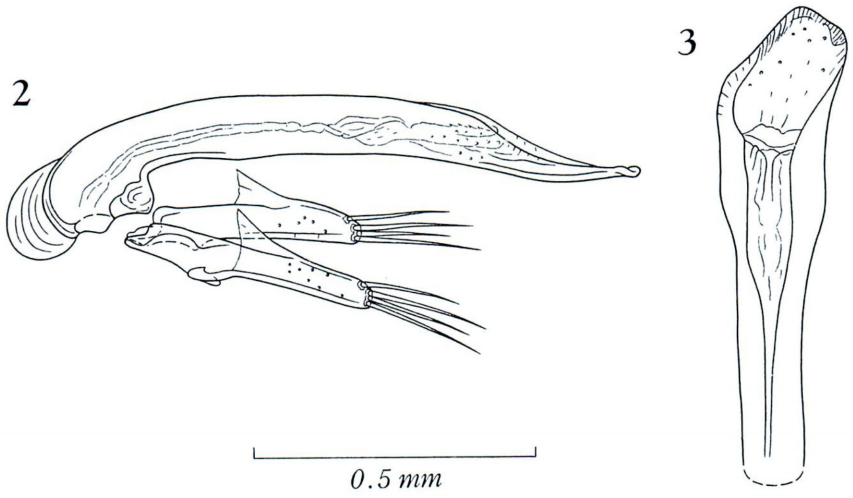
Fig. 1. *Deuveotrechus yinae* S. UÉNO, sp. nov., ♂, from Mt. Xueren Feng of the Diancang Shan Mountains in western Yunnan.

right mandible with a distinct premolar tooth; mentum not fused with submentum, with distinct labial suture, the former with a broad porrect tooth usually subtruncate at the apex, the latter sexsetose; palpi short and stout, penultimate segments widely dilated towards apices, especially in maxillary palpus, about as long as apical segment in labial palpus, and slightly shorter than that in maxillary palpus; antennae short and stout, subfiliform, reaching basal two-ninths to one-fourth of elytra in ♂, reaching basal fifth of elytra or a little shorter than that in ♀, segment 2 about as long as segment 9 and about four-fifths as long as 3,

segment 4 about as long as 5, shorter than 3 but slightly longer than 2, the remaining segments gradually decreasing in length towards segment 10 which is the shortest, each suboval and slightly less than twice as long as wide, terminal segment slightly longer than 3, about as long as but obviously narrower than scape.

Pronotum fairly large, transverse cordate, obviously wider than head, wider than long in a similar proportion, widest at about two-thirds from base, and much more strongly contracted at base than at apex; PW/HW 1.26–1.37 (M 1.32), PW/PL 1.27–1.37 (M 1.32), PW/PA 1.41–1.56 (M 1.46), PW/PB 1.67–1.89 (M 1.77); sides rather narrowly bordered throughout, strongly rounded in front, less so behind, deeply sinuate at about basal eighth or a little before that level, and then usually dilated towards hind angles though sometimes subparallel, with two pair of marginal setae, the posterior one of which is a little distant from hind angles; apex nearly straight, evidently wider than base, PA/PB 1.17–1.28 (M 1.22) [PB/PA 0.78–0.85 (M 0.82)], front angles very obtuse, only slightly advanced; base slightly arcuate at middle, briefly but distinctly emarginate on each side just inside hind angle, though the emargination varies to some extent in both size and depth due to individual difference in length and dilatation of hind angles; hind angles always sharp, usually acute, usually protrudent more or less postero-laterad but sometimes only posteriad; dorsum well convex, median line deeply impressed on the disc, but neither deepened nor widened in basal area; apical transverse impression shallow and irregular, though discernible; basal transverse impression continuous, foveolate on each side of median line and laterally merging into basal foveae, which are small but deep; postangular carinae absent; basal area smooth.

Elytra short, oval, much wider than prothorax, widest at about middle, and equally narrowed towards bases and apices; EW/PW 1.48–1.59 (M 1.56), EL/PL 2.62–2.82 (M 2.69), EL/EW 1.26–1.35 (M 1.31); shoulders widely rounded, almost effaced; prehumeral borders oblique, either very slightly arcuate or straight, diminished proximally and ending in a fine point on each side; sides rather widely reflexed, regularly arcuate from shoulders to slight preapical emargination; apices widely rounded, forming a small re-entrant angle at suture; dorsum convex, especially at the lateral parts, though longitudinally depressed on the disc, apical declivity rather gentle; scutellar striole short but distinctly impressed; striae deeply impressed and crenulate on the disc but obsolete at the side, 1–2 deep throughout, 3 shallower than the inner ones and disappearing near the two ends, 4 still shallower than 3 and obsolete in basal sixth, 5 very fine and fragmentary, 6–7 absent, 8 distinctly impressed behind the middle set of marginal umbilicate pores; apical striole short but deeply impressed, moderately arcuate, free at the anterior end though seemingly directed to the site of stria 5; intervals feebly convex only near suture, apical carina prominent though short; stria 3 with four or five setiferous dorsal pores between basal ninth and apical third (4 pores on both the elytra in 4 specimens (2♂♂, 2♀♀), 4 pores on the left elytron and 5 pores on the right in



Figs. 2–3. Male genitalia of *Deuveotrechus yinae* S. UÉNO, sp. nov., from Mt. Xueren Feng of the Diancang Shan Mountains; left lateral view (2), and apical part of aedeagus, dorsal view (3).

1♀, 5 pores on the left elytron and 4 pores on the right in 3 specimens (2♂♂, 1♀), and 5 pores on both the elytra in 3♀♀), all remarkably foveolate at the roots, a sixth pore present on the right elytron in a female paratype, which bears 4 pores on the left elytron; preapical pore situated at the apical anastomosis of striae 2 and 3 or at its site within the field of apical striole, more distant from apex than from suture, and nearer to suture than to apical striole; marginal umbilicate pores aggregated and nearly regular.

Ventral surface smooth; anal sternite bisetose in ♂, quadrisetose in ♀. Legs rather short and stout; protibiae straight, moderately dilated towards apices, each longitudinally grooved on the external face, and pubescent on the anterior face; tarsi short, tarsomere 1 about as long as or slightly shorter than tarsomeres 2–3 together in mesotarsus, evidently longer than that but shorter than tarsomeres 2–4 together in metatarsus, tarsomere 4 with a long hyaline ventral apophysis in pro- and mesotarsi; in ♂, two proximal protarsomeres widely dilated, stoutly produced inwards at apices, and furnished beneath with adhesive appendages.

Male genital organ elongate and moderately sclerotized. Aedeagus nearly a half as long as elytra, almost straight, tubular in proximal half but dilated and flattened in apical third, with small basal part and peculiarly asymmetrical apical part; basal part briefly bent ventrad, with small basal orifice and large rounded sagittal aileron; viewed dorsally, apical lobe scalene subtriangular, rounded at every corner and inclined to the left, with the right margin about twice as long as the left, left aedeagal wall before apical lobe slightly emarginate; viewed laterally, apical part narrow, feebly sinuate, gradually tapered towards the tip of apical

lobe, which is briefly twisted; ventral margin slightly emarginate behind middle in profile. Inner sac inerm, though minutely scaly just inside apical orifice. Styles small, left style only a little longer than the right and with much reduced ventral apophysis, each bearing four apical setae.

Type series. Holotype: ♂, allotype: ♀, paratypes: 3♂♂, 7♀♀ (incl. teneral 1♂, 1♀), 27–X–1995, S. UÉNO leg. The holotype is deposited in the collection of the Shanghai Institute of Entomology, Academia Sinica, Shanghai. One paratype is preserved in the collection of the Institute of Zoology, Academia Sinica, Beijing. The remainings are in the collection of the Department of Zoology, National Science Museum (Nat. Hist.), Tokyo.

Type locality. Mt. Xueren Feng, 3,350 m (2♀♀) and 3,400 m (4♂♂, 6♀♀ incl. holo- and allotypes) in altitude, of the Diancang Shan Mountains, in Dali Shi of western Yunnan, Southwest China.

Notes. Though not unlike *D. gregoryi*, this new trechine is evidently different from that species in the configuration of its pronotal hind angles, which form acute teeth protrudent postero-laterad or posteriad. They remind us of the unique hind angles of the genus *Queinnectrechus*, but the conformation of hind angles is utterly different between them. In *D. yinae*, the marginal gutters extend to the basal border along the inner sides of the hind angles, which are sharply edged outwards, whereas in *Queinnectrechus*, the marginal gutters become effaced behind the middle and do not extend to the inner sides of the digitiform hind angles.

As was noted in the introduction, the present species is markedly different from the type of the genus in the conformation of its male genitalia. It is also different from the latter in the short broad facies. These facts seem to suggest that the two species actually belong to two different genera, but if such a view is adopted, we have to be confronted with a difficulty of placing *D. gregoryi* in its proper position. Generic classification of the *Stevensius* complex is already in confusion, since males of certain critical species have been unknown, *e.g.*, *Deuveotrechus gregoryi* (JEANNEL) and *Kozlovites caviceps* JEANNEL. For the time being, I prefer to refrain from proposing another new genus for *D. yinae*, especially in view that the trechine fauna of Southwest China has been rapidly clarified in recent years.

The peculiar aedeagus of *D. yinae* with tubular proximal half and strangely modified apical part reminds us of the unique diversification of the aedeagi in the genus *Luzonotrechus*. Dealing with the Philippine trechines, I noticed certain resemblance between *Luzonotrechus* and *Agonotrechus* (UÉNO, 1979, p. 29), and demonstrated later (UÉNO, 1987, p. 125, 1992, p. 194) that the ecological divergence of lineages in the Philippine genus is paralleled by the genera belonging to the *Agonotrechus* series and that the former may have a remote relationship to the latter. This view seems confirmed to some extent by the discovery of *D. yinae*, which belongs to the *Stevensius* complex of the *Agonotrechus* series, but in which the aedeagus shows a peculiar modification without developing copulatory

sclerite, just as in the case of *Luzonotrechus*.

Most specimens of the type series of this interesting species were sifted out from heaps of dead leaves accumulated among the roots of arrow-bamboos growing under rhododendron trees just below the timber-limit of a sparse *Abies* forest. It was already cold when the collecting was made, and the trechine beetle hardly moved even when sifted out. It is surprising that two teneral individuals were included in the collection, since this seems to mean that the beetles emerged not long before that time and entered into hibernation even in a teneral state. Three individuals of *D. yinae* were found out from beneath stones embedded in the ground, though it was not determined whether they dwelled there as one of their ordinary habitats or just took refuge beneath those stones for passing the winter.

This interesting, and problematical, species is dedicated to Professor YIN Wen-ying of the Shanghai Institute of Entomology, Academia Sinica, the most eminent soil zoologist of the People's Republic of China and the leading scholar of the proturan taxonomy in the world, who organized the project "Sino-Japanese Cooperative Study on the Soil Fauna of Southwest China" and always invited me to the project.

要　　約

上野俊一：中国云南省西部にすむ高山性ヒサゴチビゴミムシ類の1新腐植種．—— 中国云南省西部の大理地域にある点苍山脈では，亜高山帯の下部から，ヒサゴチビゴミムシ系列の*Junnanotrechus microps* S. UÉNO et YIN が先に報告されている．1995年の秋季に行われた現地調査で，この山脈の高山帯から，同じ系列のチビゴミムシの別新種が発見された．雄交尾器の形状が特異であるために，この種の所属にはかなり問題があるが，外形的には云南省北西部から記載された*Deuveotrechus gregoryi* (JEANNEL) に似ている点が多い．それで，いちおう同属のものとして*Deuveotrechus yinae* という新名を与え，この論文に記載した．

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Elytra, Tokyo, **24** (1): 20, May 15, 1996

Exact Localities of *Perileptus denticollis* (Coleoptera, Trechinae)[1)]

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Perileptus denticollis JEANNEL (1923, Ann. Mag. nat. Hist., (IX), **12**, pp. 397, 406; 1926, Abeille, Paris, **32**, pp. 408, 426, figs. 202–204) was described from five specimens (3♂♂, 2♀♀; not "quatre" though so-stated in the original description) collected by French missionaries in "Yun-Nan". I have seen them in the Muséum national d'Histoire naturelle, Paris, and the Natural History Museum, London, and six additional specimens (1♂, 5♀♀) preserved in the same museums, all simply labeled "Yun-Nan". They were collected at the beginning of this century, probably before 1907, and nothing new has been added to our knowledge of the species. I failed in finding it in Xishuangbanna (cf. UÉNO & YIN, 1993, Bull. natn. Sci. Mus., Tokyo, (A), **19**, p. 70), and also in the vicinities of Kunming.

Finally in the autumn of 1995, I was able to locate three habitats of the species in the Dali area of western Yunnan. Before giving its full account, I will record these exact localities of *Perileptus denticollis*, as follows:

1♂, 2♀♀, Maocaoshao, 1,590 m alt., Taiyi Xiang, Dali Shi, 26–X–1995, S. UÉNO leg.; 5♂♂, 4♀♀, Jinlong He River, Dianxincun, 2,100 m alt., Jinhe Cun, Dongling Xiang, Jianchuan Xian, 23–X–1995, S. UÉNO leg.; 1♂, Shazhi He River, 1,740 m alt., Shazhi Cun, Binchuan Xian, 25–X–1995, Y. WATANABE leg.

At every locality, the perileptine was found on gravelly banks of clear swift streams.

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Elytra, Tokyo, **24** (1): 21–30, May 15, 1996

Macrocephalic Pterostichines (Coleoptera, Carabidae) from Central Honshu, Japan

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Abstract Two macrocephalic pterostichine carabids are described or redescribed from central Honshu, Japan. Both the species, *Pterostichus koheii* and *P. uedaorum*, are closely related to *P. macrogenys* BATES, but show striking differentiation in their male genitalia.

In 1963, NAKANE described a new macrocephalic pterostichine carabid under the name of *Pterostichus koheii* from the Yatsu-ga-take Mts., central Honshu, Japan, based on a single female. Though there is a possibility that it might be a geographical race of *P. macrogenys* (BATES, 1883, p. 245), almost nothing has since been added to our knowledge about the true systematic status of this beetle.

In recent years, specimens of the same type of pterostichine carabids have been accumulated from various mountains including the Yatsu-ga-take Mts. Judging from the shape of male genital organ, it has become evident that the specimens comprise two species, one of which is *P. koheii* and the other a new species. We are going to describe or redescribe them in this paper.

The abbreviations used herein are as follows: HW – greatest width of head; PW – greatest width of pronotum; PL – length of pronotum, measured along the median line; PA – width of pronotal apex; PB – width of pronotal base; EW – greatest width of elytra; EL – greatest length of elytra; FL – length of metafemur; ML – length of metatrochanter; NSMT – National Science Museum (Nat. Hist.), Tokyo.

We wish to express our deep gratitude to Dr. Shun-Ichi UÉNO of the National Science Museum (Nat. Hist.), Tokyo, for critically reading the manuscript of this paper. Thanks are also due to Mr. Noboru UÉDA and his family for kindly supplying us with important material. Our deep indebtedness is also due to the

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Pterostichus koheii NAKANE

[Japanese name: Yatsu-ôzu-naga-gomimushi]

(Figs. 1–3, 5–9, 12,13)

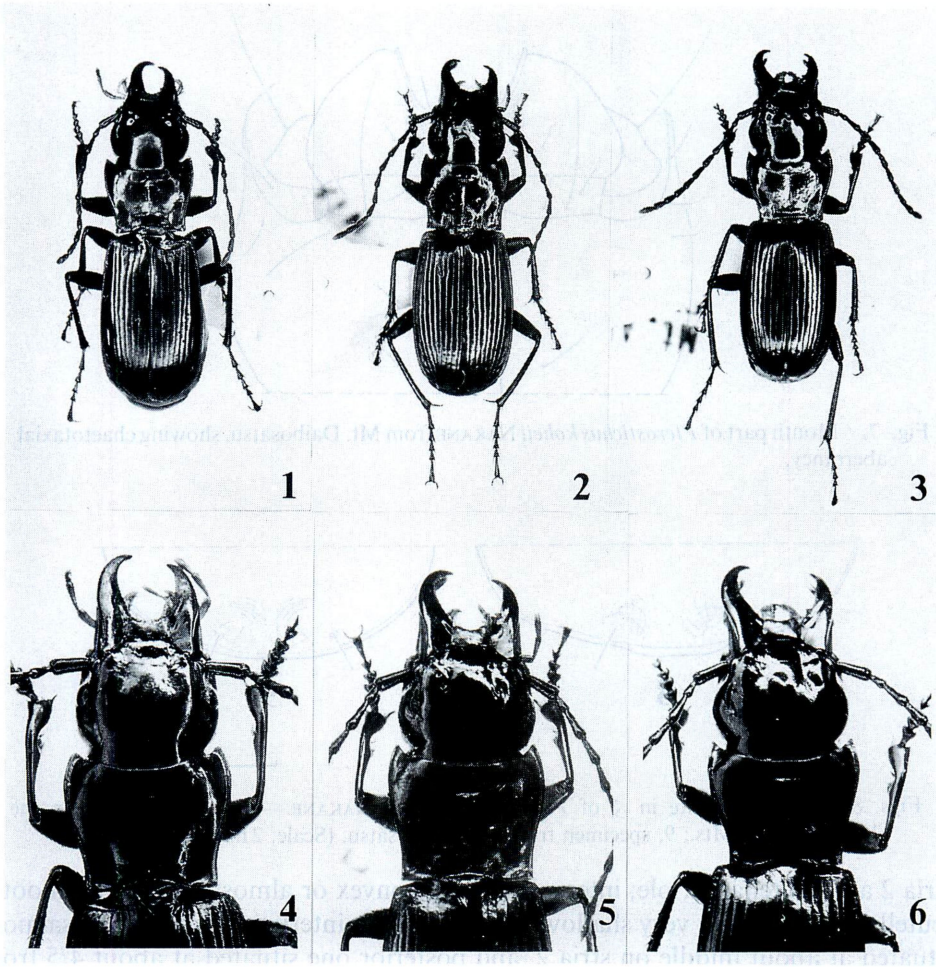
Pterostichus koheii NAKANE, 1963, Fragm. coleopt., Kyoto, (6), p. 23; 1963, Icon. Ins. Japon. Col. nat. ed., **2**, p. 34, pl. 17, fig. 23; 1983, Nat. & Ins., Tokyo, **18** (6), p. 14.——SAKAGUTI, 1981, Ins. of the World, **5**, p. 72.

Length: 12.54–14.15 mm (from apical margin of clypeus to apices of elytra). Body flat, robust and parallel-sided.

Colour dark brown; sternites, mandibles, labrum, antennae and legs lighter than dorsum; palpi reddish brown.

Head very large and convex; PW/HW 1.11 in 1♂ from the Yatsu-ga-take Mts.; frontal furrows short, shallow and divergent posteriad; eyes small and entirely flat; genae strongly convex; lateral grooves deep, arcuate inwards and widely depressed at the posterior parts, and with a short furrow outside on each side; anterior supraorbital pores situated a little before the post-eye level; posterior supraorbital ones situated at the ends of lateral grooves; mentum tooth bifid; mentum with an oblique groove and a small pit on each side; small rounded pit situated at the meeting point of gular suture and basal margin of submentum on each side; mandibles very long and strongly hooked at apices; terminal segment of maxillary palpus a little longer than the penultimate; apex of labrum widely and deeply emarginate; antennae short and subfiliform; antennal segment 2 with one seta; relative lengths of antennal segments as follows: I : II : III : IV : V : VI : XI ≒ 1 : 0.47 : 0.90 : 0.78 : 0.75 : 0.76 : 0.77 in 1♂ from the Yatsu-ga-take Mts., 1 : 0.47 : 0.93 : 0.77 : 0.76 : 0.79 : 0.83 in 1♂ and 1♀ from Mt. Akaguna-yama, 1 : 0.48 : 0.94 : 0.76 : 0.75 : 0.78 : 0.82 in 1♂ from Mt. Daibosatsu; microsculpture composed of polygonal meshes on neck in ♂ and ♀, and of wide or transverse meshes on most part of head in ♀, but largely obliterated in ♂.

Pronotum flat, nearly square, a little wider than head and widest at 1/9 from apex (measured along the median line); PW/PL 1.65, PW/PA 1.09, PW/PB 1.28, PA/PB 1.17 in 1♂ from the Yatsu-ga-take Mts.; apex widely emarginate, not bordered and a little wider than base; sides slightly arcuate in front, gradually convergent posteriad and slightly sinuate before hind angles; base strongly emarginate at median part, arcuately oblique inside each hind angle; apical angles strongly produced and obtusely pointed at the tips; anterior pair of setae inserted at about the widest part, posterior ones a little before hind angles; median line shallow, reaching neither apex nor base, and with some transverse wrinkles at the



Figs. 1–6. *Pterostichus* spp. —— 1, *Pterostichus koheii* NAKANE from the Yatsu-ga-take Mts.; 2, 5, same species from Mt. Daibosatsu; 3, 6, same species from Mt. Akaguna-yama; 4, *P. macrogenys* BATES from Renge-onsen, Niigata Prefecture.

sides; basal foveae shallow, linear at the bottom and a little divergent anteriorly; basal part sparsely and finely punctate; microsculpture composed of wide or polygonal meshes in ♂ and ♀.

Elytra rectangular, flat, widest a little behind the middle; EW/PW 1.14, EL/EW 1.61 in 1 ♂ from the Yatsu-ga-take Mts.; shoulders angulate; sides a little divergent from behind shoulders to the widest part, moderately arcuate in apical parts and with preapical emargination; epipleuron gradually narrowed towards apex; inner plica visible; apex of each elytron subangulate and separated from the other; basal border slightly arcuate; basal pore situated at the meeting point of

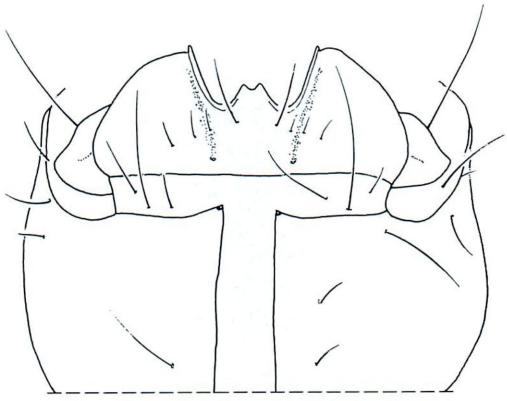
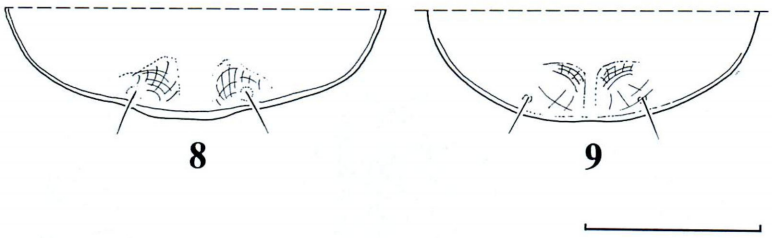


Fig. 7. Mouth part of *Pterostichus koheii* NAKANE from Mt. Daibosatsu, showing chaetotaxial aberrancy.

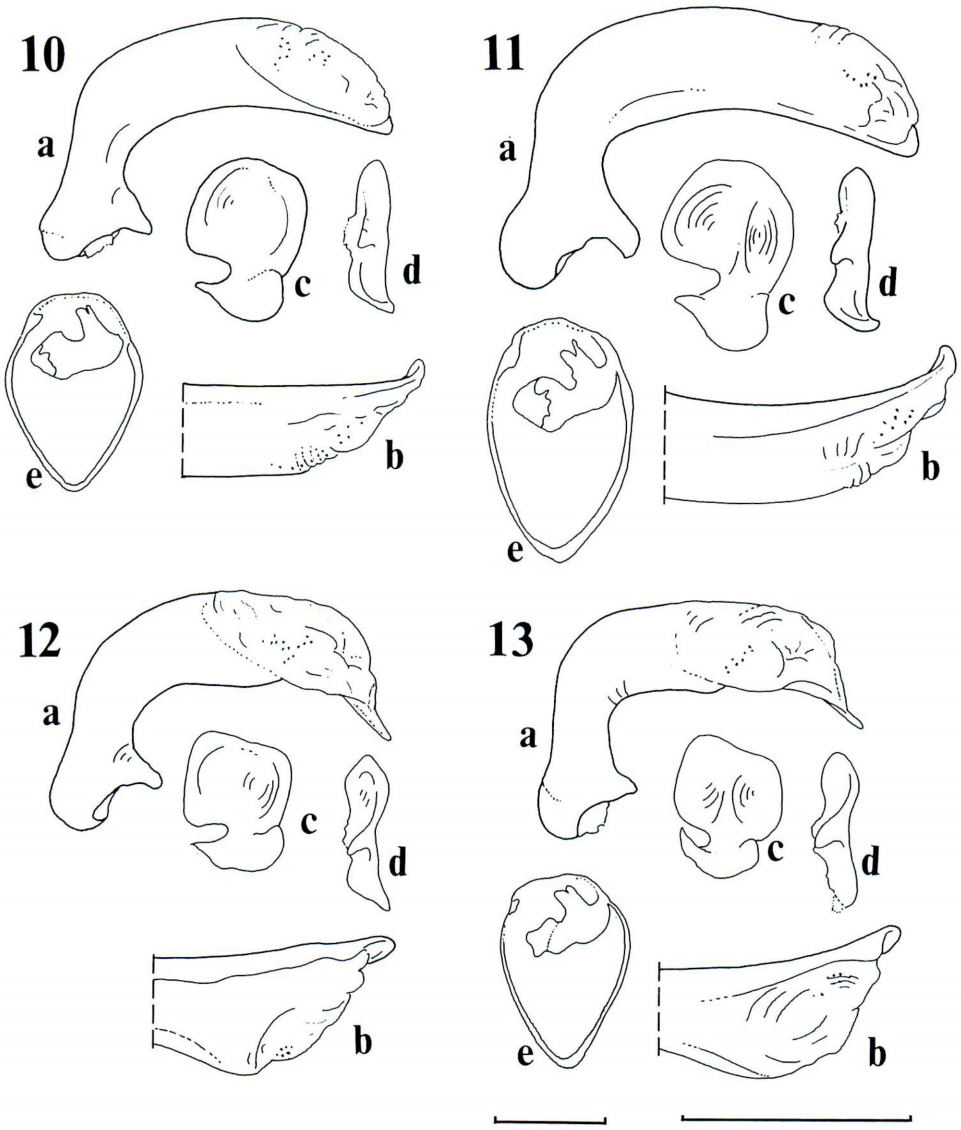


Figs. 8–9. Anal sternite in ♂ of *Pterostichus koheii* NAKANE. —— 8, Specimen from the Yatsu-ga-take Mts.; 9, specimen from Mt. Daibosatsu. (Scale: 2 mm.)

stria 2 and scutellar striole; intervals slightly convex or almost flat; striae smooth; scutellar striole short, very shallow and situated on interval 2; anterior dorsal pore situated at about middle on stria 2, and posterior one situated at about 4/5 from base on interval 3 and close to stria 2; marginal series composed of 6+5 pores; microsculpture clearly impressed in ♂ and ♀, and composed of wide or polygonal meshes, partially of irregular transverse lines.

Ventral side smooth except for rugose genae; sides of sternites 1–2 rarely finely and sparsely punctate; in ♂ from the Yatsu-ga-take Mts., apical part of anal sternite a little produced, and with a shallow longitudinal median ridge; in ♂ from Mt. Daibosatsu, apex of anal sternite very shallowly emarginate; anal sternite bordered throughout in ♂ from the Yatsu-ga-take Mts., but in ♂ from Mt. Daibosatsu not bordered at the sides.

Legs slender; in ♀ from Mt. Akaguna-yama, ventral sides of protarsi without adhesive hairs (cf. HABU, 1961); basal two segments of meso- and metatarsi with outer sulci in ♂, basal segments of meso- and metatarsi with outer sulci in ♀; protibiae weakly bowed; metatrochanter short and with rounded apex; ML/FL≒



Figs. 10–13. Male genital organ in *Pterostichus macrogenys* BATES (10, 11) and *P. koheii* NAKANE (12, 13). —— 10, Specimen from Renge-onsen, Niigata Prefecture; 11, specimen from Tobira-onsen, Nagano Prefecture; 12, specimen from the Yatsu-ga-take Mts.; 13, specimen from Mt. Akaguna-yama. —— a, Aedeagus, left lateral view; b, apical part of aedeagus, dorsal view; c, left paramere, left lateral view; d, right paramere, left lateral view; e, genital segment, dorsal view. (Scale: 2 mm.)

0.40 in 1♂ and 1♀.

Aedeagus robust; viewed laterally, ventral side slightly convex a little before the middle; apical lobe rather strongly produced and slightly twisted to the left, and with rounded apex; right paramere almost straight, widest at about apical 1/5, and with rounded apex; left one wide and square.

Specimens examined. 1♂, Natsuzawa-tôge, Yatsu-ga-take Mts., Nagano Pref., 13–VIII–1980, N. ITO leg.; 1♂ (teneral), Mt. Daibosatsu, Enzan-shi, Yamanashi Pref., 23–VI–1985, M. NISHIKAWA leg.; 1♂, Mt. Akaguna-yama, Gunma Pref., 15–X–1994, S. MORITA leg.; 1♀, same locality 23–X–1994, H. OHKAWA leg.

Range. Japan: central Honshu (Nagano Pref., Yamanashi Pref. and Gunma Pref.).

Notes. This species is closely allied to *P. macrogenys* BATES widely distributed in eastern Honshu. It is, however, distinguished from the latter by the smaller body, the flat and small eyes, the distinct elytral shoulders and more clearly impressed microsculpture on the elytra. The most definite differences between the two are in the shape of male genital organ: in *P. koheii*, the aedeagus is strongly bent at basal third, the apical part of aedeagus is wide in dorsal view, the apex is rather strongly produced, and the apical part of right paramere is wide in lateral view.

Judging from the flat eyes, the punctation of basal foveae on pronotum and the shape of aedeagal apical lobe, this species is also closely allied to *P. asahinus* HABU et BABA (1960, p. 62), which was originally described as a subspecies of *P. macrogenys* from Mt. Dôrokujin, Niigata Prefecture, Central Japan. Later in 1977, it was regarded by HABU as an independent species. According to his account, *P. asahinus* is characterized by the following points: 1) anal sternite without short ridge in the male; 2) elongate and rather strongly bent aedeagal basal part, and 3) strongly bent right paramere. Were it not for such definite characters, it could be regarded as a subspecies of *P. koheii*. Needless to say, the known ranges of the two species, *P. koheii* and *P. asahinus*, are widely distant and are separated from each other at least by several rivers of moderate size. It is to be hoped that more materials of macrocephalic pterostichine carabids will be found in the wide blank area by future investigations.

The single known specimen from Mt. Daibosatsu, which lies about 55 km southeast of the type locality, is of stout body. The standard ratios of body parts are as follows: PW/HW 1.12; PW/PL 1.54; PW/PA 1.14; PW/PB 1.17; PA/PB 1.03; EW/PW 1.15; EL/EW 1.54. Chaetotaxial aberrancy is found in this specimen: clypeus with an additional seta at about middle; left anterior supraorbital seta with two short additional setae; the area between two supraorbital setae on the right side with seven long setae. Aberrancy is also observed in the mouth part: genae with total seven setae on ventral side; three short setae present on buccal fissure; submentum with a pair of short setae just inside a pair of long ordinary

ones; mentum probably with a pair of short seta.

Only a single female specimen known from Mt. Akaguna-yama, which lies about 45 km northeast of the type locality, is relatively small-sized (12.54 mm in the length of body). The standard ratios of body parts are: PW/HW 1.09; PW/PL 1.59; PW/PA 1.07; PW/PB 1.31; PA/PB 1.22; EW/PW 1.09; EL/EW 1.63.

The male specimen from the Yatsu-ga-take Mts. was found from under a large stone lying at the side of a path. The male from Mt. Akaguna-yama was found from a deep fissure of a weathering outcrop of rocks, together with several specimens of *Broscosoma doenitzi* HAROLD.

Pterostichus uedaorum MORITA et HIRASAWA, sp. nov.

[Japanese name: Ueda-ôzu-naga-gomimushi]

(Figs. 14–19)

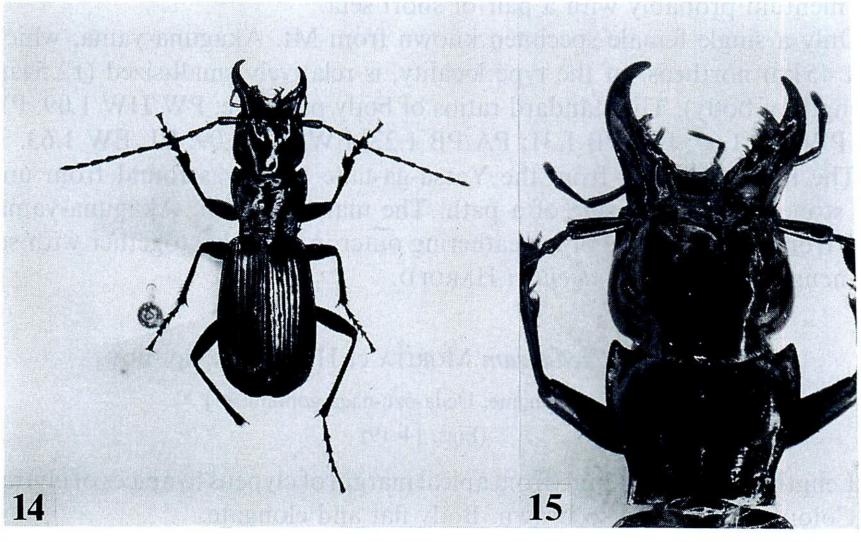
Length: 13.87–15.53 mm (from apical margin of clypeus to apices of elytra).

Colour dark brown to brown. Body flat and elongate.

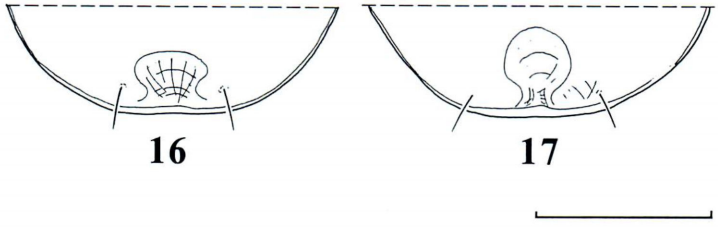
Head very large, a little narrower than pronotum; PW/HW 1.08 in the holotype; frontal furrows short, shallow and almost parallel; eyes entirely flat and small; genae strongly convex; lateral grooves arcuate and widely depressed at posterior ends and reaching posterior supraorbital pores; anterior supraorbital ones situated a little before the post-eye level; mentum tooth bifid and with a pair of setae; mentum with an oblique groove and a small pit on each side; small rounded pit situated on each side at the meeting point of gular suture and basal margin of submentum; submentum with two pair of setae on each side; mandibles very long and strongly hooked at apices; surface sparsely and finely punctate; antennae filiform; relative lengths of antennal segments as follows: I : II : III : IV : V : VI : XI ≒ 1 : 0.49 : 0.80 : 0.76 : 0.76 : 0.75 : 0.72; microsculpture almost vanished or composed of irregular meshes but partially disordered.

Pronotum flat, nearly square, a little wider than head and widest at about 1/7–1/5 from apex (measured along the median line); PW/PL 1.51, PW/PA 1.17, PW/PB 1.32 in the holotype; apex widely emarginate, not bordered and a little wider than base; PA/PB 1.13 in the holotype; sides slightly arcuate in front, shallowly sinuate behind and then parallel to each other towards hind angles; base strongly emarginate at median part, arcuately oblique or almost straight inside each hind angle; apical angles strongly produced and obtusely pointed at the tips; anterior pair of setae inserted a little before the widest part, posterior ones a little before hind angles; anterior transverse impression shallow; median line clearly impressed, reaching neither apex nor base; basal foveae rather deep and linear; surface sparsely and finely punctate, densely so in basal part; microsculpture composed of wide meshes but partially disordered.

Elytra flat and elongate; shoulders slightly rounded; EW/PW 1.25, EL/EW 1.63 in the holotype; sides a little divergent from behind shoulders to the widest



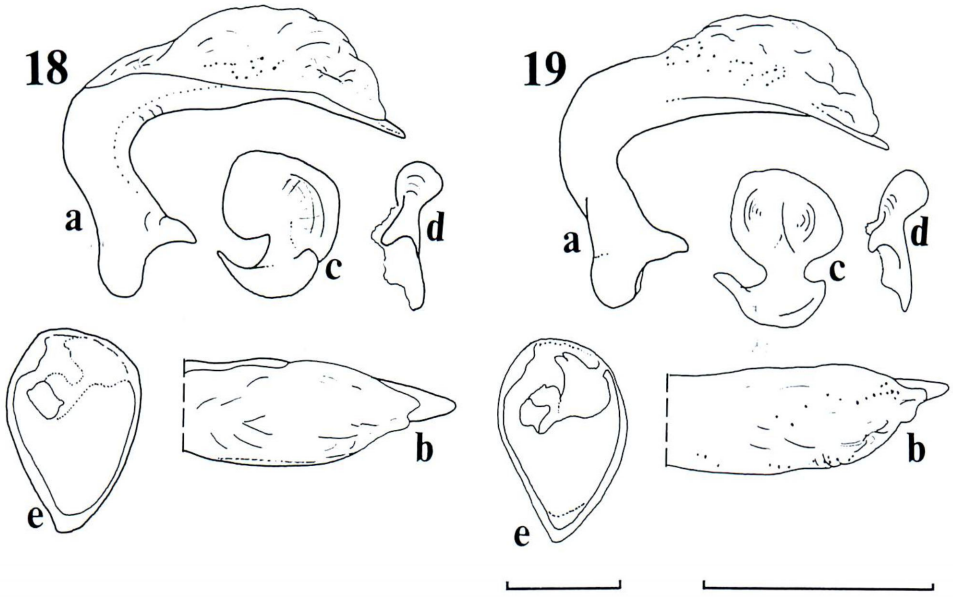
Figs. 14–15. *Pterostichus uedaorum* MORITA et HIRASAWA, sp. nov. —— 14, Specimen from Mt. Iwôzen; 15, specimen from Shiramine-mura.



Figs. 16–17. Anal sternite in ♂ of *Pterostichus uedaorum* MORITA et HIRASAWA, sp. nov. —— 16, Specimen from Mt. Iwôzen; 17, specimen from Shiramine-mura. (Scale: 2 mm.)

part, widely arcuate in apical parts and with shallow preapical emargination; epipleuron gradually narrowed towards apex; inner plica visible; apices separated from each other, and forming a re-entrant angle at suture; basal border slightly arcuate; basal pore situated at the meeting point of stria 2 and scutellar striole; intervals slightly convex or flat; striae almost smooth; scutellar striole short, very shallow and situated on interval 2; anterior dorsal pore situated at about middle on stria 2, and posterior one situated at about 4/5 from base on interval 3 and close to stria 2; marginal series composed of 6 + 5 pores; microsculpture composed of wide or transverse meshes in ♂, of polygonal or wide meshes, partially irregular transverse lines, in ♀.

Genae smooth on ventral side; prepisternum, mesepisternum, sides of metasternum, metepisternum and sides of sternites 1–2 sparsely and coarsely



Figs. 18–19. Male genital organ of *Pterostichus uedaorum* MORITA et HIRASAWA, sp. nov. —— 18, Specimen from Mt. Iwôzen; 19, specimen from Shiramine-mura. —— a, Aedeagus, left lateral view; b, apical part of aedeagus, dorsal view; c, left paramere, left lateral view; d, right paramere, left lateral view; e, genital segment, dorsal view. (Scale: 2 mm.)

punctate; sides of sternite 3–5 finely and sparsely punctate; in ♂, apex of anal sternite slightly emarginate, and with rather a deep concavity.

Legs slender; tarsi smooth on dorsal side; in ♀, ventral sides of protarsi without adhesive hairs; protibiae slightly bowed; metatrochanter short and with rounded apex; ML/FL ≒ 0.37.

Aedeagus robust and strongly bent at basal third; viewed dorsally, apical part almost straight; apical lobe rather strongly produced, and with rounded apex; right paramere weakly bent at apical third, and with widely rounded apex; left one wide.

Type series. Holotype: ♂, 12–IX–1992, Mt. Iwôzen, N. UÉDA leg. (NSMT). Allotype: ♀, 18–VIII–1991, Shiramine-mura, N. UÉDA leg. Paratype: 1♂, Shiramine-mura, 18–VIII–1991, N. UÉDA leg.

Localities. Mt. Iwôzen, Kanazawa-shi and Mt. Haku-san (Shaka-rindô), Shiramine-mura, Ishikawa Prefecture, central Honshu, Japan.

Notes. This new species is separable from the other members of macrocephalic pterostichine carabids by having a combination of the following characters: 1) flat body with slender legs and antennae; 2) in ♀, anal sternite with a deep concavity; 3) strongly bent aedeagus; 4) rather strongly produced apical

lobe of aedeagus, and 5) bent right paramere with widely rounded apex.

The standard ratios of body parts in the specimens from Shiramine-mura are as follows:—PW/HW 1.06, 1.07; PW/PL 1.48, 1.62; PW/PA 1.08, 1.13; PW/PB 1.33, 1.35; PA/PB 1.20, 1.23; EW/PW 1.20, 1.24; EL/EW 1.55, 1.60.

要　約

森田誠司・平沢伴明：中部日本産のオオズナガゴミムシ類について．—— 原記載以降，記録のなかったヤツオオズナガゴミムシ *Pterostichus koheii* NAKANE を，基産地付近からの雄に周辺部からの標本を加えて再記載した．また，北陸地方から発見された1新種をあわせて記載した．この新種は，体が平たく，頭部が非常に大きく，陰茎が強く屈曲し，先端部も細く伸長すること，および右側片が屈曲し先端が広く丸みを帯びることで，容易にほかのオオズナガゴミムシ類とは区別される．

種名 *P. uedaorum* は，快く研究材料を提供され，種々お世話くださった上田昇氏とご家族の皆様に献名した．

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Elytra, Tokyo, **24** (1): 31–40, May 15, 1996

Some Species of the Genus *Oxycentrus* (Coleoptera, Carabidae, Harpalini)

Noboru Ito

1–7–18 Higashiuneno, Kawanishi City, Hyôgo Pref., 666–01 Japan

Abstract Three new species of the genus *Oxycentrus* Chaudoir, *O. baehri* and *O. gracilitarsis* from Thailand and *O. acutipennis* from Tonkin, are described, and a redescription of *O. acutulus* Bates from Myanmar is given.

Introduction

In this paper, I am going to redescribe *Oxycentrus* (s. str.) *acutulus* Bates from Myanmar and to describe three new species, *Oxycentrus* (s. str.) *baehri* and *O.* (*Oxycentropsis*) *gracilitarsis* from Thailand and *O.* (*Oxycentropsis*) *acutipennis* from Tonkin. *Oxycentrus baehri* resembles *O. acutulus* Bates, but is different from the latter in having the antennae slenderer, the apical angles less prominent and the elytra mostly not reddish brown. *Oxycentrus gracilitarsis* is characterized by the subsquare pronotum and the slender tarsi. The species of the subgenus *Oxycentropsis* have hitherto been known only from the Malay Peninsula to the Sunda Islands, and is firstly recorded from the Indo-chinese Region.

I wish to express my deep gratitude to Dr. Martin Baehr of the Zoologische Staatssammlung, München, Dr. Fritz Gusenleitner of the Landesmuseum, Linz, and Dr. Ivan Löbl of the Muséum d'Historie naturelle, Genève, for their kind offering many valuable materials. *Oxycentrus baehri* is named after Dr. Martin Baehr. I also heartily thank Dr. Robert Poggi of the Museo di Storia Naturale, Genova, for his kind loan of type specimens and Mr. Taichi Shibata for his kind guidance in my study.

Oxycentrus (s. str.) ***acutulus*** Bates

(Figs. 1, 5)

Oxycentrus acutulus H. W. Bates, 1892, Annli. Mus. civ. Stor. nat. Genova, (2), **12**: 344. —— Kirschenhofer, 1992, Linzer biol. Beitr., **24**: 51.

Body subcylindrical, elongate, parallel-sided, more or less similar in form to small examples of *Oxycentrus* (s. str.) *melas* (Schmidt-Göbel), dark reddish brown, shiny, without iridescent lustre; head black except for palpi and antennae

light reddish brown and labrum and mandibles dark brown, femora yellowish brown.

Head narrow, a little less than two-thirds the pronotal width, rather convex, very sparsely and minutely punctate; labrum transversely quadrate, straight at apex; clypeus gently convex, obscurely rugose at inner side of each lateral setiferous pore; clypeal suture clear and moderately deep; frontal impressions subarcuately divergent behind, relatively deep, shallowed near supraorbital grooves; eyes small, not strongly prominent; temple long, a half the eye length, drawing a gently emarginate curve; genuine ventral margin of eye widely separated from buccal fissure; mandibles moderately long, robust, clearly curved inwards; antennae submoniliform, short, not prolonged backwards beyond elytral bases, 3rd segment rather well dilated distad, sparsely pubescent in apical half, as long as the 4th and a half longer than the 2nd; 3rd segment of labial palpus well thickened medially and one-eighth longer than the 2nd; ligula inverted-trapezoidal, truncate at apex; paraglossae moderately curved in portions free from ligula, prolonged in front a little beyond it; median tooth of mentum more weakly porrect than those of other species of the genus, transversely triangular, epilobes weakly widened forwards; microsculpture invisible under 80 × magnification.

Pronotum almost square, widest at apical two-fifths, a little wider than long (1.14 in ratio), indistinctly contracted in front and behind, uniformly well convex, very sparsely and minutely punctate on disc and moderately and rather coarsely so in basal foveae; sides widely bordered, weakly rounded in front from the widest point, shallowly sinuate a little behind middle, thence subparallel to base; apex finely bordered, rather deeply emarginate, straight at the bottom of the emargination; base one-seventh wider than apex, feebly arcuate, brokenly bordered; apical angles more or less porrect, narrowly rounded; basal angles almost rectangular, edentate at tips; lateral furrows narrow throughout, each with a marginal seta at apical fifth; basal foveae ill-defined, only flattened in inclined area of discal convexity; front and hind transverse impressions obliterated; median line fine and clear, reduced near apex and somewhat deepened near base; microsculpture mostly invisible, detectable as isodiametric meshes in the furrows and as vague transverse lines in basal foveae.

Hind wings complete. Elytra elongate and well convex as in the species of *Batoscelis* Dejean, one and three-fourths as long as wide, very sparsely and microscopically punctate; sides almost parallel, slightly arcuate in humeri, with more or less deep apical sinus; apices not produced behind, widely rounded, narrowly separated from each other, blunt at sutural angles; bases almost truncate, subrectangular and distinctly toothed at humeral angles; striae wide, deep and clearly crenulate, scutellar striole very short; intervals weakly raised on disc, more swollen laterally and apically, without setiferous pore on 3rd interval; marginal series divided into two groups, the fore group consisting of 6 umbilicate pores and the hind one of 7–8 pores; microsculpture visible only in each lateral three

intervals which are transversely meshed in most areas and isodiametrically so in part.

Ventral surface sparsely and rather coarsely punctate on meso- and metepisterna and lateral portions of metasternum, with very short and sparse pubescence medially on metasternum and 2nd to 6th abdominal segments; metepisternum distinctly narrowed behind, twice as long as wide; 6th abdominal segment in ♂ bisetose on each side, widely and gently arcuate at tip.

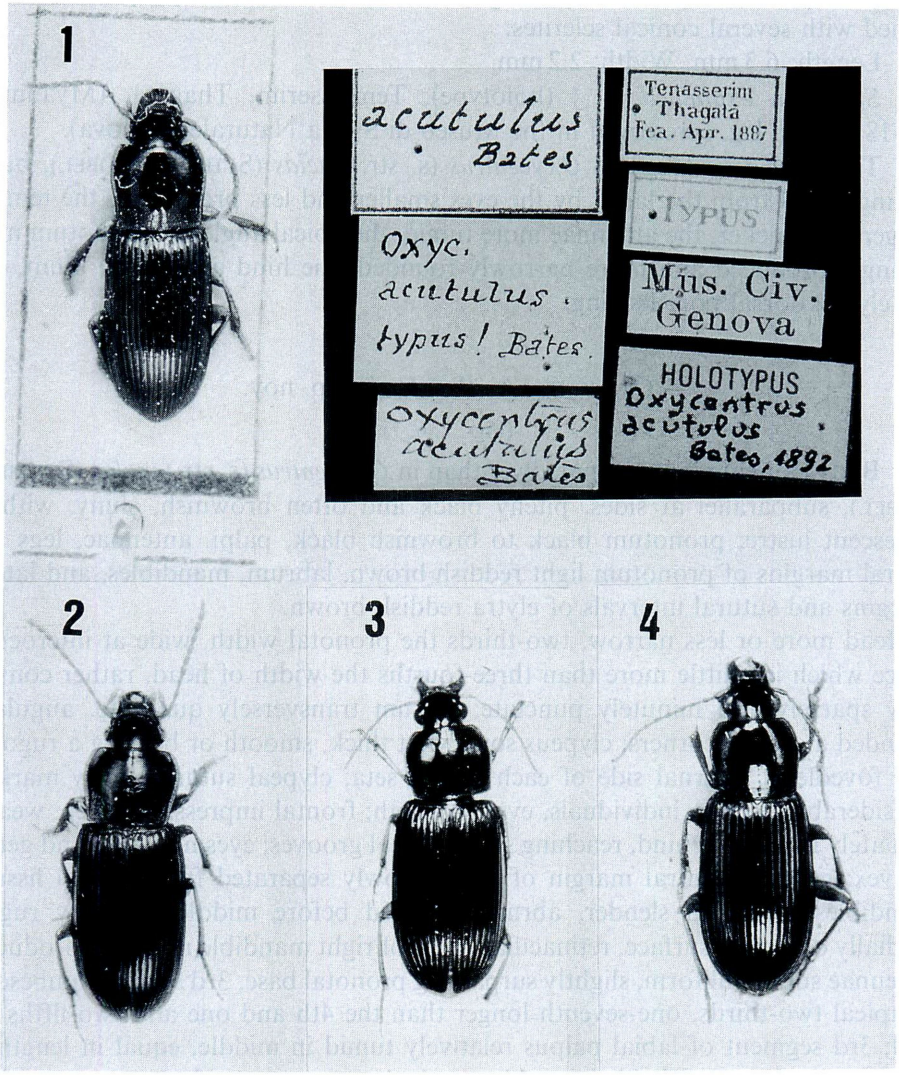


Fig. 1–4. Habitus of *Oxycentrus* spp. —— 1, *O.* (s. str.) *acutulus* BATES (holotype); 2, *O.* (s. str.) *baehri* sp. nov.; 3, *O.* (*Oxycentropsis*) *gracilitarsis* sp. nov.; 4, *O.* (*Oxycentropsis*) *acutipennis* sp. nov.

Legs relatively short; femur tumid, hind femur with two setae along hind margin; fore tibia thick, distinctly dilated apicad, weakly oblique in external half of apex, with three long spines along apico-external margin, terminal spur long and simple; hind tarsus a little shorter than width of head including eyes (0.86 in ratio), 1st segment as long as the 2nd and 3rd combined, 2nd one-fifth longer than the 3rd and twice the 4th, claw segment bisetose along each ventral margin.

Aedeagus (Fig. 5) slender, weakly arcuate; apical lobe subquadrate, rounded and thickly bordered at distal margin; apical orifice narrowly open, inner sac armed with several conical sclerites.

Length: 6.3 mm. Width: 2.2 mm.

Specimen examined. 1♂ (holotype), Tennasserim, Thagatà, (Myanmar), IV–1887, Fea leg. (preserved in the Museo di Storia Naturale, Genova).

This species is allied to *Oxycentrus* (s. str.) *melas* (Schmidt-Göbel), but is distinguished from the latter by the eyes smaller and less prominent, the temples longer and thicker, the antennae more tumid, the apical angles of pronotum more strongly produced and more narrowly rounded, the hind angles not blunt, and the elytral dorsal pore lacking.

Oxycentrus (s. str.) ***baehri*** sp. nov.

(Figs. 2, 6, 7)

Body elongate, but less narrower than in *Oxycentrus* (s. str.) *melas* (Schmidt-Göbel), subparallel at sides, pitchy black and often brownish, shiny, without iridescent lustre; pronotum black to brownish black, palpi, antennae, legs and lateral margins of pronotum light reddish brown, labrum, mandibles, and lateral margins and sutural intervals of elytra reddish brown.

Head more or less narrow, two-thirds the pronotal width, wide at interocular space which is a little more than three-fourths the width of head, rather convex, very sparsely and minutely punctate; labrum transversely quadrate, angularly rounded at apical corners; clypeus somewhat thick, smooth or bearing a rugosity like foveole at internal side of each lateral seta; clypeal suture clearly marked, considerably deep in individuals, even in depth; frontal impressions deep, weakly arcuately running behind, reaching supraorbital grooves; eyes not large and gently convex; genuine ventral margin of eye narrowly separated from buccal fissure; mandibles long and slender, abruptly curved before middle, coarsely rugose medially on dorsal surface, retinacular tooth of right mandible minutely produced; antennae submoniliform, slightly surpassing pronotal base, 3rd segment pubescent in apical two-thirds, one-seventh longer than the 4th and one and two-fifths the 2nd; 3rd segment of labial palpus relatively tumid in middle, equal in length to the 2nd; ligula parallel-sided, weakly notched at apex; paraglossae narrow, fully prolonged beyond ligula; epilobes of mentum narrow and not widened forwards; microsculpture invisible under 80× magnification.

Pronotum subquadrate, widest at apical third, a little wider than long (about 1.2 in ratio), gently and uniformly convex, very sparsely punctulate on disc, rather coarsely and moderately punctate in lateral furrows and basal foveae; sides weakly convergent towards both apex and base, shallowly sinuate before base, with thick borders; apex very shallowly emarginate, straight in middle, entirely bordered; base a little wider than apex (1.1–1.2 in ratio), almost truncate, vaguely and brokenly bordered; apical angles not prominent, rather widely rounded; basal angles angulate and slightly larger than rectangle; lateral furrows deep, wholly carved in a line; basal foveae small, only flat, shallowly and longitudinally grooved at inner sides; front transverse impression short and obscure, hind one obsolete; median line fine, shallow and reaching both apex and base; surface obscurely microsculptured only in lateral furrows and basal foveae and transversely meshed.

Hind wings entirely developed. Elytra elongate-oblong, a little more than one and seven-tenths as long as wide, almost flat on disc and abruptly declivous near sides, without punctures; sides weakly arcuate at humeri, a little more deeply sinuate before apices than in *O. melas*; apices more prominent than those of *O. melas*, more or less widely rounded, not or narrowly separated from each other, sharp at sutural angles; bases hardly emarginate, humeral angles angulate, a little obtuse and minutely toothed at tips; striae shallower than those of *O. melas*, clearly crenulate, scutellar striole obliterated or very short; intervals flat or weakly convex on disc, becoming more convex laterad and apicad, 3rd interval not bearing setiferous pore; marginal series widely interrupted in middle, composed of $8+(7-8)$ umbilicate pores; microsculpture vaguely observable as lines on disc, clearly detected as transverse meshes on the lateral declivous areas.

Ventral surface mostly smooth, coarsely punctate on lateral portions of metasternum; metepisternum elongate, four-fifths longer than wide; abdomen sparsely pubescent along middle of 2nd to 6th segments, 6th bisetose on each side in both sexes, subtruncate in ♂ and clearly arcuate in ♀.

Hind femur bisetose along hind margin; fore tibia strongly expanded distad and gently arcuate inwards, not incised in external half of apex, quadrispinous apico-externally, terminal spur robust and lanceolate; tarsi relatively short, 1st segments of fore and mid tarsi not bearing adhesive squama on ventral side, hind tarsus five-sixths in ♂ and about three-fourths (0.78 in ratio) in ♀ the width of head, 1st segment as long as the 2nd and 3rd together, 3rd three-fourths the 2nd and one-fifth longer than the 4th, claw segment bi- or trisetose along each ventral margin.

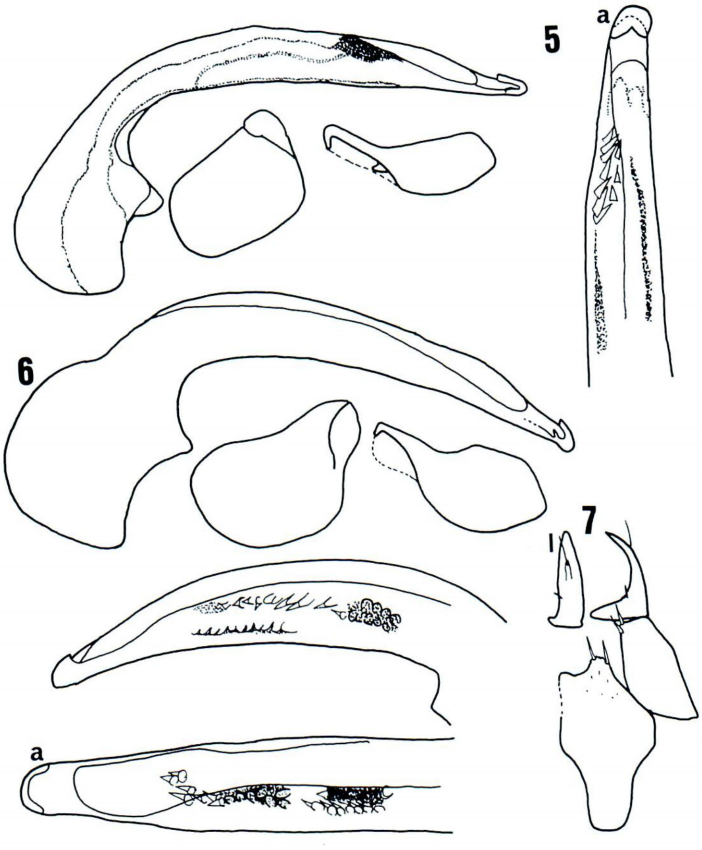
Aedeagus (Fig. 6) slender, almost straightly prolonged distad; apex slightly hooked above; apical lobe as long as wide, rounded and bordered at distal margin; apical orifice widely open, inner sac bearing many conical sclerites. Stylus (Fig. 7) slender and gently curved, with a short seta basally at external margin; basal segment bisetose apico-externally; valvifer bisetose at apex.

Length: 6.2–7.0 mm. Width: 2.3—2.7 mm.

Holotype: ♂, Doi Inthanon, Chiang Mai Prov., Thailand, 8～9–V–1990, Malicky leg. (preserved in the Zoologische Staatssammlung, München). Paratypes: 2♀♀, same data as the holotype; the following examples bear same locality and collector as the holotype, 1♂, 17～24–IV–1990, 1♀, 25～29–IV–1990, 1♂, 1～3–V–1990, 2♂♂, 4～6–V–1990, 1♂, 1♀, 10～11–V–1990, 1♀, 12～14–V–1990.

This new species is closely allied to *Oxycentrus* (s. str.) *acutulus* Bates, but differs in having the antennae slenderer, the pronotum less prominent and more widely rounded at apical angles and more strongly contracted behind at sides and the elytra less elongate and mostly black instead of being reddish brown.

The new species is also similar to *Oxycentrus* (s. str.) *melas* (Schmidt-Göbel), but is distinguished from the latter, in addition to the characters mentioned above, by the body wider and brownish in color instead of being black, the pronotum more thickly bordered, and the elytra bearing reddish margins and sutural intervals instead of being black.



Figs. 5–7. Genitalia of *Oxycentrus* spp. —— 5, *O.* (s. str.) *acutulus* Bates; 6 & 7, *O.* (s. str.) *baehri* sp. nov.; 6, male; 7, female; a, dorsal view; l, lateral view.

Oxycentrus* (*Oxycentropsis*) *gracilitarsis sp. nov.

(Figs. 3, 8)

Body oblong, relatively convex, pitchy black, shiny, slightly iridescent on elytra; maxillae, maxillary and labial palpi yellowish brown, antennae light brown, legs brown, mandibles and lateral margins of pronotum dark reddish brown.

Head evenly convex, narrow, about two-thirds the pronotal width, very sparsely and minutely punctate only on frons; labrum transversely trapezoidal, shallowly emarginate at apex; clypeus narrowly depressed along apex, gently humped behind the depression, with a deep rugosity near each side; clypeal suture fine and clear, even in depth throughout; frontal impressions deeply carved, gently arcuate outwards and reaching supraorbital grooves; eyes comparatively large and hemispherically convex; temples thin and short, subrectangularly meeting with neck constriction; genuine ventral margin of eye adjoining buccal fissure; antennae slender and extending a little beyond elytral base, 3rd segment slightly dilated distad, slightly shorter than the 4th (0.95 in ratio) and three-fifths longer than the 2nd; mandibles robust and moderately sharp, left mandible weakly triangular at retinacular tooth, the tooth of right mandible minutely protuberant; apical segments of maxillary and labial palpi tumid; ligula narrow, triangularly produced at apical corners, fused with paraglossae just behind apex; paraglossae well prolonged forwards beyond ligular apex, narrow at the prolonged parts; mentum narrow, with epilobes strongly widened apicad; microsculpture invisible under 80 × magnification.

Pronotum subsquare, weakly contracted behind, widest at apical two-fifths, one-fourth wider than long, relatively convex, smooth on disc, coarsely and moderately punctate in lateral furrows and basal foveae; sides rather thickly bordered, gently curved in front; apex evenly and shallowly emarginate; base three-tenths wider than apex, weakly arcuate at sides; both borders of apex and base complete; basal angles more or less obtuse and angulate, with a very minute protuberance at each tip; lateral furrows narrow, gradually widened behind, linked with basal foveae, which are ill-defined, rather wide and bear small grooves near inner sides; front transverse impression hardly observable, hind one a little clearer than the front one; median line fine, clear and reaching both apex and base; microsculpture detected only in the furrows and foveae, consisting of obscure transverse meshes.

Hind wings fully developed. Elytra oblong-oval, two-thirds longer than wide and three-tenths wider than pronotal width, uniformly well convex, without punctures; sides gently arcuate in humeri, shallowly sinuate before apices; apices weakly produced, narrowly rounded at tips, close to each other, angularly rounded at sutural angles; bases shallowly emarginate, forming an obtuse, angulate and edentate angle with each side; striae deep, wide and clearly crenulate, scutellar striole comparatively long than usual; intervals rather convex even on disc,

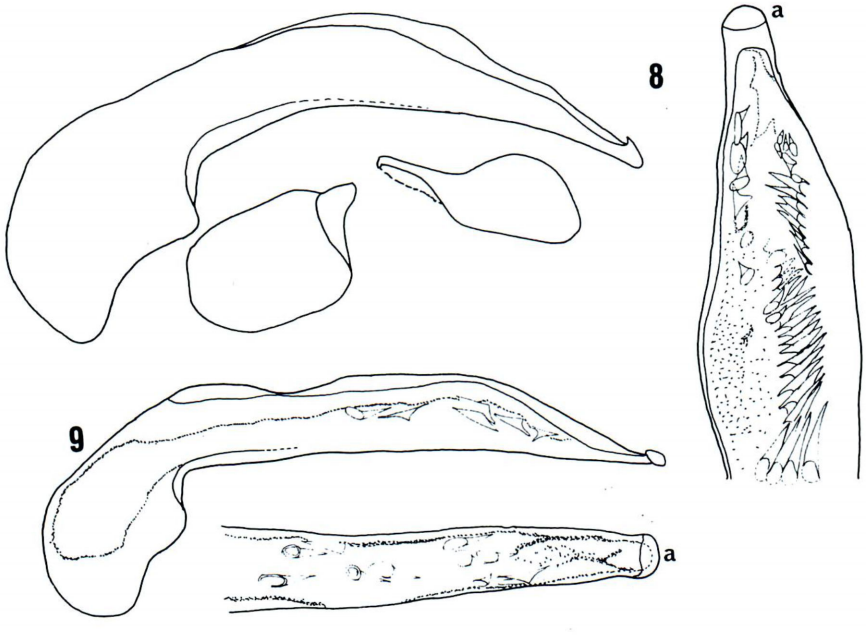
becoming more convex apicad and laterad, 3rd interval with four setiferous pores along 2nd stria; marginal series widely interrupted in middle, composed of 8+9 umbilicate pores; microsculpture unobservable.

Ventral surface mostly smooth, with several punctures laterally in metasternum, not pubescent except for prosternum and 2nd to 6th abdominal segments sparsely pubescent; metepisternum well narrowed behind, two-thirds longer than wide; 6th abdominal segment in ♂ bisetose on each side and subtruncate at apex.

Hind femur bisetose on hind margin; fore tibia slender, deeply incised in external half of apex, bispinous apico-externally, with a clear sulcus on dorsal surface; fore tarsi slenderer than usual, 1st segment of mid tarsus without adhesive biseriate squamae, hind tarsus one-tenth longer than the width of head, 1st segment a little shorter than the 2nd and 3rd together (0.93 in ratio) and one and three-fifths the 2nd, 3rd one-third longer than the 4th, claw segment bisetose along each ventral margin.

Aedeagus (Fig. 8) gently arcuate, more or less thickened and obliquely hooked above at apex; apical lobe square, rounded at tip; inner sac armed with a group of five large conical sclerites on right side, one of small conical sclerites and of numerous slender peg-shaped sclerites on left side and one of large peg-shaped sclerites near basal part.

Length: 7.7 mm. Width: 3.0 mm.



Figs. 8–9. Genitalia of *Oxycentrus* spp. —— 8, *O.* (*Oxycentropsis*) *gracilitarsis* sp. nov.; 9, *O.* (*Oxycentropsis*) *acutipennis* sp. nov.; a, dorsal view.

♀ Unknown.

Holotype: ♂, 300–400 m, Kaeng Krachan Nat. Pak., Phetchaburi, Thailand, 17–XI–1985, BURCKHARDT & LÖBL leg. (preserved in the Muséum d'Histoire naturelle, Genève).

This new species is somewhat similar to *Oxycentrus* (s. str.) *argutoroides* (BATES), but is easily distinguished from the latter by the antennae slenderer, the pronotum wider, the apices of fore tibiae more deeply incised in external halves and the tarsi slenderer, besides the subgeneric characteristics.

Oxycentrus* (*Oxycentropsis*) *acutipennis sp. nov.

(Figs. 4, 9)

This new species resembles *Oxycentrus* (*Oxycentropsis*) *gracilitarsis*, but is different from the latter in having the body smaller, the eyes less prominent, the pronotum less transverse and sharper at basal angles, and the sutural angles of elytra not rounded. The new species is also allied to *Oxycentrus* (s. str.) *melas* (SCHMIDT-GÖBEL), but is distinguished from the latter, in addition to the subgeneric characteristics, by the sides of pronotum not sinuate before base, the elytra not toothed at humeral angles and with sharp sutural angles, and the tibiae much slenderer.

Pronotum subqudrate, weakly contracted forwards and backwards, with sides rather thickly bordered, sparsely punctate in basal foveae. Hind wings entire. Elytra subparallel-sided, rather convex, not punctate; scutellar striole very short. Sixth abdominal segment in ♂ bisetose on each side.

Aedeagus (Fig. 9) slender, almost straightly prolonged distad; apex thin, knob-shaped at tip; apical orifice widely open, inner sac armed with two groups of sclerites which are conical and rather elongate.

Length: 6.9 mm. Width: 2.6 mm.

♀ Unknown.

Holotype: ♂, Tonkin, with a label inscribed *Oxycentrus debilis* SCHAUB., (preserved in the Landesmuseum, Linz).

要　　約

伊藤　昇：*Oxycentrus*属の数種について．—— *Oxycentrus* (s. str.) *acutulus* BATES を再記載した．また，タイから *Oxycentrus* (s. str.) *baehri* および *O.* (*Oxycentropsis*) *gracilitarsis* をそれぞれ記載した．前者は，*O. acutulus* にきわめてよく似ているが，触角がより細いこと，前胸背板側縁がより強く狭まること，上翅がより短いことなどで区別できる．また後者は，*Oxycentrus* (s. str.) *argutoroides* (BATES) に似ているが，触角および付節がより細いこと，前脛節先端の外側が深く切れ込むことなどで区別できる．さらに，ベトナム(Tonkin)より *Oxycentrus* (*Oxycentropsis*) *acutipennis* を記載した．この種は，*O. gracilitarsis* に似ているが，より小型なこと，前胸背板はより横長で後角がより鋭いこと，上翅会合線先端角が鋭いことなどの点で異なる．*Oxycentro-*

psis 亜属の種は，従来マレイ半島からスンダ諸島にかけての地域だけから知られていたが，今回インドシナ半島より初めて記録された．

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Elytra, Tokyo, **24** (1): 40, May 15, 1996

New Record of Staphylinid Beetles from Minamidaitô-jima Island, the Ryukyus

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In the previous short report (WATANABE, 1991, Elytra, Tokyo, **19**, p. 18), six species of staphylinid beetles were recorded from Minamidaitô-jima Island, the Ryukyus.

Through the courtesy of Dr. K. KUROSA, Tokyo, some staphylinid beetles obtained on Minamidaitô-jima Island were given to me. They contained four species, three of which are new to the fauna of this island. They are recorded below, all having been obtained by Mr. J. OKUMA on June 13th, 1977, at Ikenosawa on Minamidaitô-jima Island, the Ryukyus. I thank Dr. K. KUROSA for his kindness in giving me the specimens.

1. *Philonthus discoideus* GRAVENHORST, 1♀.
2. *Philonthus rectangulus* SHARP, 2♂♂.
3. *Atanygnathus terminalis* (ERICHSON), 1♂.

Elytra, Tokyo, **24** (1): 41–47, May 15, 1996

Three New Species of the Genus *Nazeris* (Coleoptera, Staphylinidae) from Taiwan

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Abstract Three new staphylinid beetles of the genus *Nazeris* are described from Taiwan under the names of *N. smetanai* sp. nov., *N. yasutoshii* sp. nov. and *N. simulans* sp. nov.

In the present paper, I am going to describe three new species of Taiwanese *Nazeris* collected by Dr. A. Smetana and Mr. Y. Shibata. They resemble the species belonging to the *N. femoralis* group but are easily recognized on the unarmed male hind trochanters. On an accompanying map (Fig. 8), the distribution of the new species will be shown.

Nazeris smetanai sp. nov.

(Figs. 1–2)

Body rather small but robust, shining, black, mandibles, labrum and basal two or three segments of antennae reddish brown, maxillary and labial palpi, remaining antennal segments and legs yellowish brown; pubescence on body surface dark brown to black.

Length: 4.7 mm.

Head suborbicular rather than subquadrate, a little longer than wide (1.05 : 1), coarsely, closely and more or less irregularly punctate, the arrangement of punctures slightly disturbed on subdepressed frons; labrum clearly four-toothed, widely and triangularly notched in middle, the inner two teeth thick and a little longer than the outer two; vertex gently convex; eyes relatively large, prominent, the longitudinal diameter clearly larger than a half the length of postgena; postgenae roundly narrowed toward neck; antennae slightly surpassing the middle of pronotum, all the segments distinctly longer than wide, 1st segment very robust and nearly as long as the following two segments together, 2nd shortest but wide, 3rd to 10th gradually shortened distad, 11th slightly longer and wider than the 10th. Ventral surface of head similarly punctate though more regularly to the dorsal surface; mentum shiny, submentum less so.

Pronotum oval, longer than wide (1.14 : 1), a little shorter (0.93 : 1) and

narrower than head (0.86 : 1), widest at apical third, from where the sides are strongly rounded apicad and gently so basad; disc more coarsely punctate than on head, the punctures becoming less coarse laterad, somewhat irregularly arranged near median line, which is narrow, hardly discernible, and traceable in basal half, with feeble depression on each side.

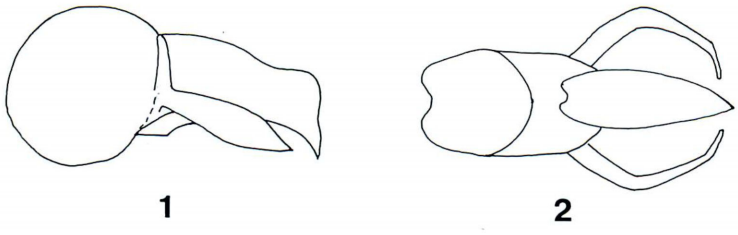
Elytra subtriangular, moderately narrowed at shoulders, considerably shorter than pronotum (0.86 : 1), width at the widest part near apices about twice as wide as bases and hardly wider than pronotal width; surface slightly undulate, coarsely, closely and a little rugosely punctate, the punctures intermediate in size between those on head and on pronotum. Prosternum coarsely and transversely seriate-punctate, median carina rather obtuse and almost vanishing at the apical extremity. Scutellum perceptibly punctate.

Abdomen slightly dilated laterad, punctures on basal tergites similarly sized as those on head, becoming finer toward apical tergites, those on each sternite coarser than on the corresponding tergite, those on terminal tergite very fine and obsolete. In male, 5th sternite scarcely, 6th weakly and 7th moderately depressed along middle, 8th sternite not depressed and rather widely and shallowly excised at apical margin in middle; hind trochanters without any hooks on outer sides.

Male genitalia trilobed, median lobe composed of basal spheroidal piece and apical sclerotized part, the apical part shaped as a bamboo-leaf, pointed at tip and slightly curved ventrad; a pair of apophyses heavily sclerotized, strongly expanded laterad, sharply pointed at apices, not extending beyond the apex of median lobe and clearly thickened in middle, when viewed laterally.

Holotype: ♂, Mt.Taipingshan (1,880 m), Ilan Hsien, Taiwan, 14–VII–1993, A. SMETANA leg. (Canadian National Insect Collection, Ottawa).

Though the present species is generally similar in the punctuation to the members of the *N. femoralis* group, it is easily distinguished from the latter by the unarmed male hind trochanters. It is also allied to *N. pallidipes* REITTER from Caucasus in the robust body, but is immediately discriminated by much closer punctures on the body, obviously shorter labral teeth and quite different shape of aedeagus.



Figs. 1–2. *Nazeris smetanai* sp. nov.; 1, aedeagus in lateral view; 2, same in ventral view.

Nazeris yasutoshii sp. nov.

(Figs. 3–4)

Body a little shiny, reddish black, head slightly lightened, mandibles, labrum, and basal two or three segments of antennae reddish brown, remaining antennal segments, maxillary and labial palpi and legs brownish yellow; pubescence on body surface dark brown to black.

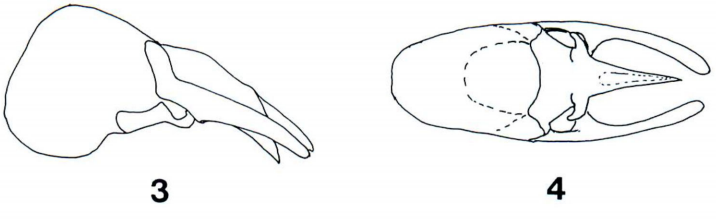
Length: 5.0 mm.

Head subquadrate, slightly longer than wide (1.07 : 1), coarsely, closely and rather regularly punctate, the punctures scarcely disturbed in arrangement even on subdepressed frons; labrum with inner teeth a little longer than the outer; vertex evenly convex, postgenae subparallel-sided, slightly and sublinearly narrowed behind and widely angulated toward neck; eyes moderate-sized, with the longitudinal diameter about a half the length of postgena; antennae slender, extending beyond the middle of pronotum, all the segments clearly longer than wide, 1st segment robust and longest, 2nd shortest, 3rd to 10th gradually decreasing in length distad, 10th approximately equal in length to 2nd and shorter than 11th. Ventral surface of head similarly punctate to the dorsal surface.

Pronotum ovate, longer than wide (1.20 : 1), about as long as and narrower than head (0.89 : 1), widest at apical third, from where the lateral sides are more gently rounded basad than apicad; discal punctures coarse and close, slightly coarser than on head, and somewhat irregular in arrangement on both sides of median line, which exists in basal half.

Elytra widened apicad, rather weakly contracted at bases, shorter than pronotum (0.79 : 1), widest near apices, and as wide as pronotal width; surface slightly undulate and coarsely, rugosely punctate, the punctures a little irregular in form due to slight undulations. Prosternum with median carina diminishing apicad in height, and almost invisible near apical margin.

Abdomen slightly enlarged laterad, widest at 6th segment, from which it is narrowed both apicad and basad, with punctures coarse and close on basal tergites, fine and sparse on apical tergites, those on sternites deeper than on the opposite tergites. In male, 6th sternite very weakly or scarcely depressed along middle, 7th sternite weakly so, 8th sternite not depressed and rather deeply and triangularly



Figs. 3–4. *Nazeris yasutoshii* sp. nov.; 3, aedeagus in lateral view; 4, same in ventral view.

excised at apical margin in middle, each hind trochanter and hind femur normally formed, without any specific features.

Male genitalia with apical part of median lobe sharply triangular, bending ventrad, pointed at apex and provided with a pair of lateral processes near basal third, the processes semitransparent, incurved and directed backward at apices; apophyses rather weakly sclerotized, with a distinct triangular tooth on each inner side at basal third, slightly incrassate apicad in ventral view and moderately extending beyond the tip of median lobe.

Holotype: ♂, Near Chihtuan, Ilan Hsien, Taiwan, 23–VII–1978, Y. SHIBATA leg. (Tokyo University of Agriculture Collection, Tokyo).

The present species resembles *N. persimilis* in general appearance with the exception of the following differences: the male hind trochanters not uncinate, the aedeagal shape quite different, and the male 7th sternite more deeply and more distinctly depressed.

This species is named after Mr.Yasutoshi SHIBATA, Tokyo, to whom I am much indebted for his offer of material and in many other ways.

Nazeris simulans sp. nov.

(Figs. 5–7)

Body a little shining, reddish brown, head slightly lightened, abdomen darkened, antennae except for 1st segment, mouth part and legs sordid yellow, with brownish to blackish pubescence.

Length: 4.7–5.0 mm.

Head nearly quadrate, a little longer than wide (1.05 : 1), coarsely, closely and

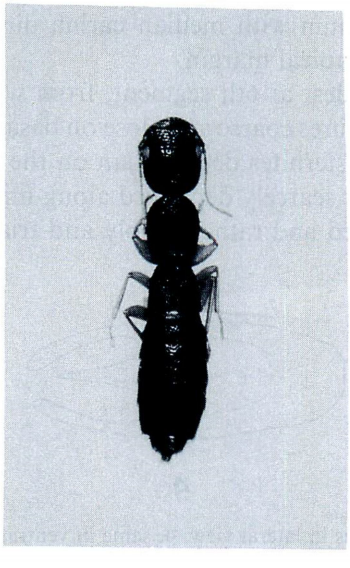


Fig. 5. *Nazeris simulans* sp. nov.

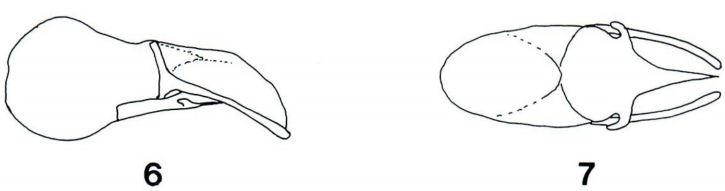
regularly punctate but a little irregularly so on weakly depressed frons; vertex evenly convex; eyes moderate-sized, the longitudinal diameter subequal to a half the length of postgena, postgenae subparallel-sided, widely angulately narrowed toward neck; antennae extending beyond the middle of pronotum, all the segments apparently longer than wide, 1st segment very robust and about as long as the following two segments together, 2nd segment shortest but wide, each segment of 3rd to 10th shorter than the preceding one, 11th slightly longer and wider than the 10th.

Pronotum oval, longer than wide (1.24 : 1), a little longer (1.04 : 1) and narrower (0.88 : 1) than head; lateral sides, each bearing two or three long setae near the widest part at apical third, arcuately convergent apicad and gradually and sublinearly so basad; discal punctures coarse, close and deep, becoming finer laterad, and slightly disarranged along middle near base by median line which is hardly observable, with faint depression on each side. Scutellum small and seemingly devoid of distinct punctures. Prosternum with median carina weakened near apex.

Elytra very short, narrowed basad, not strongly contracted at shoulders, much shorter (0.72 : 1) and scarcely narrower than pronotum, coarsely, closely and somewhat rugosely punctate.

Abdomen slightly dilated toward 6th segment, then narrowed toward apical segments, without any microsculpture, and with punctures usually diminishing distad in size. In male, 7th sternite hardly depressed along middle, 8th sternite not depressed and triangularly excised at apical margin; hind femora and hind trochanters without any peculiarities.

Male genitalia similar in structure to those of the preceding species, but slightly more slender and delicate, median lobe similarly curved ventrad, sharply pointed at the tip and with a pair of lateral processes behind middle; apophyses much thinner, hardly extending beyond the tip of median lobe and not bearing teeth on the inner side at base.



Figs. 6–7. *Nazeris simulans* sp. nov.; 6, aedeagus in lateral view; 7, same in ventral view.

Holotype: ♂, Near Juisui Spa (400 m), Hualien Hsien, Taiwan, 26–III–1980, Y. SHIBATA leg. (Tokyo University of Agriculture Collection, Tokyo). Paratype: 1♀, the same locality as holotype (260 m), 11–VIII–1976, Y. SHIBATA leg.

Further specimens examined. 1♂, 1♀ (teneral), the same data as holotype.

The present species differs from the preceding as follows: the elytra relatively

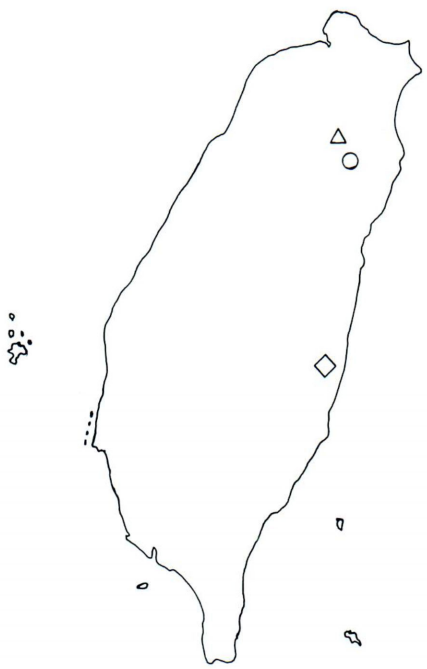


Fig. 8. Map showing the localities of ○–*Nazeris smetanai* sp. nov., △–*Nazeris yasutoshii* sp. nov., and ◇–*Nazeris simulans* sp. nov.

short, the pronotum proportionally longer, the male 6th and 7th sternites of abdomen more shallowly depressed and the apophyses of aedeagus edentate on inner sides.

Acknowledgment

I am heartily thankful to Dr. A. SMETANA, Ottawa, and Mr. Y. SHIBATA, Tokyo, for their kindness in offering the material used in this study.

要　　約

伊藤建夫：台湾産*Nazeris*属ハネカクシの3新種について．—— 台湾産の*Nazeris*属ハネカクシを3種記載した．これらは点刻が*femoralis*群のものに類似するが，雄の後転節に鉤状突起をもたないことにより容易に区別することができる．本論文では3種を記載するとともに，その分布図を示した．

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Elytra, Tokyo, **24** (1): 47–48, May 15, 1996

On the Microhabitat of *Taeniocerus pygmaeus* (Coleoptera, Passalidae)[1)]

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JOHKI and KON (1989) pointed out that passalid species living in the detritus-like microhabitats bear markedly wide front tibiae as compared with ones living either in the gallery excavated into fallen trees or under the bark of dead trees, and showed three species of the genus *Taeniocerus* KAUP with wide tibiae, *T. bicanthatus* (PERCHERON), *T. platypus* (KAUP) and *T. pygmaeus* (KAUP). Of these, the former two species have been reported to

1) The present research was supported in part by the Grant-in-Aid from the Japan Ministry of Education, Science and Culture (No. 04041068).

live in colony under fallen trees on the ground, not tunneling into logs (KON & JOHKI, 1987; KON & ARAYA, 1992).

Recently, we had an opportunity to observe the microhabitat of *Taeniocerus pygmaeus*, and herewith briefly report it. One of us (ARAYA) collected some carcasses of adult and two live 2nd instars of *T. pygmaeus* in Sungai Jelak, Sarawak, Borneo, on 28 Aug., 1993. They occurred in clay-like, rotten wood substance in the abandoned termite's nest within a fallen tree (wood and termite species unknown). This clay-like substance is presumed to originate from the detritus made during the termite's activity. In addition, some adults of this species were collected from the same kind of microhabitat on Pankor Is. off the Malay Peninsula, in May, 1995 (IWASE, pers. comm.).

It has been reported that larvae of some species of the Scarabaeoidea are likely to specialize in the detritus-like microhabitat produced by termite's activity; *e.g.*, *Aegus* spp. in the Lucanidae (ARAYA, 1994) and *Madrasostes kazumai* OCHI *et al.* in the Ceratocanthidae (IWATA *et al.*, 1985). Moreover, the New World passalid species, *Ptichopus angulatus* (PERCHERON), is known to be possibly associated with leaf-cutter ants (REYES-CASTILLO, 1970; SCHUSTER, 1984). All life stages of this species are found in the detritus of leaf-cutter ant's refuse (SCHUSTER, 1984).

Further field studies are desired to know whether *Taeniocerus pygmaeus* may also specialize in the microhabitat produced by termite's activity.

In closing this brief report, we wish to thank Drs. M. MATSUI and T. HIKIDA, Kyoto University, and Messrs. D. LABANG and A. A. HAMID, the Forest Department of Sarawak, for their warm companionship and assistance during the survey, Mr. K. IWASE for useful information and Dr. R. IWATA, the University of Sydney, for reading an early draft of this manuscript. The survey in Sarawak was conducted under the permission from the Forest Department of Sarawak.

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Elytra, Tokyo, **24** (1): 49–59, May 15, 1996

Contributions to the Knowledge of the Quediina (Coleoptera, Staphylinidae, Staphylinini) of China

Part 4. Genus *Quedius* STEPHENS, 1829. Subgenus *Raphirus* STEPHENS, 1829. Section 1

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Abstract Taxonomic and faunistic data on the species of the genus *Quedius*, subgenus *Raphirus*, from the People's Republic of China are provided. *Quedius aereipennis* BERNHAUER, 1929 and *Q. kalganensis* BERNHAUER, 1933 are redescribed, *Q. wanyan* (Qinghai) and *Q. caelestis* (Yunnan and Sichuan) are described as new. Lectotype is designated for *Quedius aereipennis*.

This is the fourth paper of the series of papers dealing with the Quediina of the People's Republic of China. It deals with some species of the subgenus *Raphirus* STEPHENS, 1829.

Very few species of the subgenus *Raphirus* were described from China until now. Two of them, *Q. maculiventris* BERNHAUER, 1934 and *Q. ornativentris* BERNHAUER, 1934 were recently redescribed (SMETANA, 1990, 1995) and two additional species, *Quedius aereipennis* BERNHAUER, 1929 and *Q. kalganensis* BERNHAUER, 1933 are redescribed in this paper. One of the two remaining described species, *Q. chinensis* BERNHAUER, 1915 was redescribed by GRIDELLI (1924, 149), and the second one, *Q. reitteri* BERNHAUER, 1933, will be dealt with in my next paper on the subgenus *Raphirus*.

Two species are described as new in this paper: *Q. wanyan*, similar to *Q. kalganensis*, from a specimen from Qinghai, and *Q. caelestis*, belonging to the *Gardneri* Group, from specimens from Yunnan and Sichuan. The lectotype is designated for *Q. aereipennis*.

Quedius (*Raphirus*) *aereipennis* BERNHAUER

(Figs. 1–5)

Quedius aereipennis BERNHAUER, 1929, 111.

Description. Piceous-black, pronotum and elytra slightly paler, piceous-

black; head and pronotum with feeble, elytra with appreciable metallic lustre; abdomen slightly iridescent; maxillary and labial palpi, antennae and legs testaceo-brunneous, medial faces of middle and hind tibiae darkened. Head rounded, wider than long (ratio 1.23); eyes very large and convex, tempora considerably shorter than eyes seen from above (ratio 0.15); no additional setiferous punctures between anterior frontal punctures; posterior frontal puncture touching posterio-medial margin of eye, one setiferous puncture between it and posterior margin of head; temporal puncture touching posterior margin of eye; surface with fine, dense microsculpture of transverse and oblique waves, becoming irregular on clypeus. Antenna moderately long, segments 2 and 3 subequal in length, segments 4–7 longer than wide, gradually becoming shorter, segments 8–10 about as long as wide, last segment as long as two preceding segments combined. Pronotum as long as wide, widest at about posterior third, moderately narrowed anteriad, broadly rounded at base, moderately transversely convex; dorsal rows each with three punctures; sublateral rows each with two punctures, posterior puncture situated before level of large lateral puncture; surface with microsculpture finer and denser than that on head. Scutellum with very fine microsculpture of transverse waves, with numerous punctures on apical half. Elytra moderately long, at base slightly narrower than pronotum at widest point, vaguely widened posteriad, at suture vaguely shorter (ratio 0.93), at sides vaguely longer than pronotum at midline (ratio 1.11); punctation very fine, dense, transverse interspaces between punctures mostly slightly larger than diameters of punctures; surface between punctures without microsculpture; pubescence piceous. Wings fully developed. Abdomen with tergite 7 (fifth visible) with whitish apical seam of palisade fringe; punctation of abdominal tergites about same as that on elytra, becoming distinctly sparser toward apex of each tergite, and, in general, particularly toward apex of abdomen, but not leaving appreciable areas along apex of each tergite impunctate; pubescence piceous, each tergite on either lateral portion with a patch of denser, paler hairs; surface between punctures with exceedingly dense and fine microsculpture of transverse striae.

Male. First four segments of front tarsus moderately dilated, sub-bilobed, each densely covered with modified pale setae ventrally; segment two vaguely narrower than apex of tibia (ratio 0.90); segment four narrower than preceding segments. Sternite 8 with five long setae on each side; with moderately wide and deep, obtusely triangular medio-apical emargination, small triangular area before emargination flattened and smooth (Fig. 1). Genital segment with tergite 10 rather narrow basally, markedly narrowed toward narrowly arcuate apex, with numerous long setae near apex (Fig. 2); sternite 9 narrow, with basal portion slender, strongly asymmetrical, subacute apically, without differentiated apical or subapical setae (Fig. 3). Aedoeagus (Figs. 4, 5) narrow and elongate; median lobe almost evenly narrowed toward subacute apex, in lateral view with minute tooth on face adjacent to paramere. Paramere narrow, elongate, with apical portion spindle-shaped,

narrower than apical portion of median lobe and distinctly not reaching apex of median lobe; four fine setae at apex, medial pair longer than lateral pair, two similar setae at each lateral margin below apex; underside of paramere with sensory peg setae forming two very long, irregular longitudinal rows, each with 16 or 18 peg setae; internal sac without larger sclerotized structures.

Female. Unknown.

Length 6.0 mm.

Type material. BERNHAUER (1929, 111) described the species from at least two specimens collected by WALKER at "Da-laen-saen bei Nong-po". I was able to study one male specimen deposited in the BERNHAUER collection at the Field Museum of Natural History, Chicago, Illinois. It is labelled as follows: "Da-laen-saen. nr. Nong-po. Walker coll."/"Q861"/"93–18."/"Quedius aereipennis Brh. Cotyp"/"aereipennis Bernh. Cotypus"/"Chicago NHMus M. Bernhauer Collection". The specimen is missing the entire right middle leg and the tarsi of both hind legs. It was dissected, and sternite 8, the genital segment and the aedoeagus were mounted into Canada balsam on a transparent plate attached to the pin with the beetle. The specimen is hereby designated as the lectotype of *Q. aereipennis*; the label "Lectotype Quedius aereipennis Bernhauer A. Smetana des. 1995" has been attached to it.

Geographical distribution. *Quedius aereipennis* is at present known only from the type locality, which is believed to be in the province of Zhejiang near Ningbo.

Bionomics. Nothing is known about the collection circumstances of the species.

Recognition and comparison. *Quedius aereipennis* is similar to *Q. maculiventris* BERNHAUER, 1934, known at present from Sichuan and Taiwan. It differs by the large and more robust body form and by the male sexual characters, particularly by the wider and shallower medio-apical emargination of sternite 8, and by the differently shaped aedoeagus with the median lobe not appreciably dilated anteriorly before the apex and with the rows of sensory peg setae on the underside of the paramere more numerous (Figs. 4, 5 and figs. 104, 106 in SMETANA, 1995, 72).

Quedius (Raphirus) kalganensis BERNHAUER

(Fig. 6)

Quedius kalganensis BERNHAUER, 1933, 41.

Description. Dark brownish-piceous with piceous-black head, apical margins of visible abdominal tergites 5 and 6 indefinitely paler; abdomen iridescent; maxillary and labial palpi and antennae rufo-testaceous, legs rufo-brunneous. Head of rounded quadrangular shape, wider than long (ratio 1.20), narrowed posteriad behind eyes, posterior angles entirely obsolete; eyes large, moderately

convex, tempora considerably shorter than eyes seen from above (ratio 0.38); no additional setiferous punctures between anterior frontal punctures; posterior frontal puncture separated from posterio-medial margin of eye by distance about equal to diameter of puncture, one puncture between it and posterior margin of head; temporal puncture separated from posterior margin of eye by distance slightly larger than diameter of puncture; tempora with some very fine punctures; surface of head with dense and very fine microsculpture of transverse waves with some longitudinal junctions, becoming submeshed on small area in middle of frons. Antenna rather slender, moderately long, only inconspicuously widened toward apex; segment 3 longer than segment 2 (ratio 1.32), segments 4–7 longer than wide, gradually becoming shorter, segments 8–10 about as long as wide, last segment as long as two preceding segments combined. Pronotum slightly wider than long (ratio 1.12), widest at about posterior third, markedly narrowed anteriad, with lateral margins continuously arcuate with broadly rounded base, transversely convex, lateral portions not explanate; dorsal rows each with three punctures; sublateral rows each with two punctures, posterior puncture situated considerably before level of large lateral puncture; microsculpture of transverse and oblique waves about as fine as that on pronotum, but indistinctly denser, gradually changing into somewhat elongate meshes on latero-apical areas. Scutellum impunctate, with fine microsculpture of transverse waves. Elytra fairly short, at base distinctly narrower than pronotum at widest point, scarcely widened posteriad, at suture distinctly (ratio 0.78), at sides scarcely (ratio 0.91) shorter than pronotum at midline; punctation and pubescence fairly fine and dense, transverse interspaces between punctures mostly about as large as diameters of punctures; pubescence brownish-piceous; surface between punctures without microsculpture. Wings fully developed. Abdomen with tergite 7 (fifth visible) bearing whitish apical seam of palisade fringe; punctation and pubescence of abdominal tergites about equally dense, but somewhat finer than that on elytra, gradually becoming slightly sparser toward apex of each tergite and in general toward apex of abdomen; pubescence brownish-piceous; surface between punctures with exceedingly dense and fine microsculpture of transverse striae.

Female. First four segments of front tarsus dilated, slightly sub-bilobed, each densely covered with modified pale setae ventrally; segment two narrower than apex of tibia (ratio 0.78); segment four narrower than preceding segments. Genital segment with tergite 10 small, moderately narrowed toward subarcuate, medially narrowly emarginate apical margin, with two apical and one subapical seta at each side of emargination, narrowly, inconspicuously pigmented along midline in front of emargination (Fig. 6).

Male. Unknown.

Length 8.0 mm.

Type material. BERNHAUER (1933, 41) described the species from one female from "Kalgan". The holotype, deposited in the Field Museum of Natural History,

Chicago, Illinois, is labelled as follows: "Kalgan"/"296."/"Mongolei don. Dr. G. Hauser"/"Kalganensis Brnh. Typ.un."/"kalganensis Bernh. Typus unic."/ "Chicago NH Mus. M. Bernhauer Collection". The specimen is in perfect shape. It was dissected and the genital segment, with tergite 10 separated, was mounted in Canada balsam on a transparent plate, and attached to the pin with the beetle.

Geographical distribution. *Quedius kalganensis* is presently known only from the type locality in the Hebei Province.

Bionomics. Nothing is known about the collection circumstances of the holotype.

Recognition and comments. BERNHAUER (*l.c.*) assigned *Q. kalganensis* to the "ochropterus-Gruppe" and compared it with *Q. sturanyi* GANGLBAUER, 1895, known from the eastern Alps in Europe. It is difficult to speculate on the relationships of *Q. kalganensis*, since only one female specimen is known at present; but it is very likely that the habitual similarity of *Q. kalganensis* with the species of the European "ochropterus-Gruppe" is merely a convergence and that the species, together with *Q. wanyan*, is a member of a different species-group that evolved in eastern Asia. *Quedius kalganensis* and *Q. wanyan* are presently the only two large species of the subgenus *Raphirus* known from China with the impunctate scutellum and the habitus of species near *Q. ochropterus* ERICHSON, 1840.

The type locality "Kalgan" was also known as "Chang-chia-k'ou" and is currently known as Zhangjiakou, a town about 200 km NW of Beijing. The handwritten label "Mongolei don. Dr. G. Hauser", attached to the holotype, is misleading.

Quedius* (*Raphirus*) *wanyan sp. nov.

(Fig. 7)

Description. In all characters very similar to *Q. kalganensis*, but different as follows: black, elytra reddish-brown, with large, black common spot leaving wide lateral portion and narrow medio-apical portion of apical margin pale, abdomen piceous-black, apical margins of abdominal tergites somewhat paler, narrowly so on first two visible tergites, but paler portion gradually becoming wider toward abdominal apex, paler color extended almost over apical third on sixth visible tergite; head and pronotum slightly, abdomen distinctly iridescent; maxillary and labial palpi testaceous, antennae with three basal segments rufo-testaceous, remaining segments dark brunneous, except last segment indefinitely paler; legs rufo-brunneous with vaguely paler tarsi, medial faces of hind femora inconspicuously darkened. Head wider, more distinctly wider than long (ratio 1.24); eyes more convex and relatively larger, tempora even more distinctly shorter than eyes seen from above (ratio 0.28); posterior frontal puncture and temporal puncture almost touching posterio-medial, respective posterior, margin of eye; microsculpture finer and denser, becoming to great extent finely meshed on anterior

half of head. Antenna similar, but slightly more robust, with segment 3 more distinctly longer than segment 2 (ratio 1.41). Pronotum more distinctly wider than long (ratio 1.17), widest near hind margin. Elytra slightly longer, at suture vaguely shorter (ratio 0.93), at sides as long as pronotum at midline.

Female. First four segments of front tarsus not appreciably different from those of *Q. kalganensis*. Genital segment with tergite 10 rather narrow, slightly pigmented medio-apically, markedly narrowed toward narrowly arcuate apex, with several subapical setae (Fig. 7).

Male. Unknown.

Length 8.0 mm.

Type material. Holotype (female): China: "China (Qinghai) Qinghai-Nanshan ca. 32 km nw. Caka 3700–3800 m (Wan Yan Tong Bu) 7/10. VII. 1993 Heinz leg.". In the SMETANA collection, Ottawa, Canada.

Geographical distribution. *Quedius wanyan* is at present known only from the type locality in eastern Qinghai, west of Qinghai Lake, known also as Koko-Nor Lake in the past.

Bionomics. Nothing is known about the habitat requirements of this species.

Recognition and comments. *Quedius wanyan* may be easily distinguished from *Q. kalganensis*, in addition to the shape of tergite 10 of the female genital segment, by the coloration and some additional differences mentioned above.

The coloration of the body of *Q. wanyan* is remarkably similar to that of *Q. dubius fimbriatus* ERICHSON, 1840 from middle Europe, but the latter species differs abundantly in several other characters.

Etymology. The specific epithet is a portion of the name of the type locality, in apposition.

Quedius (*Raphirus*) *caelestis* sp. nov.

(Figs. 8–14)

Description. Black, elytra bright greenish-blue or blue; head and pronotum feebly, abdomen distinctly, iridescent; maxillary and labial palpi piceous, antennae brownish with first segment piceous, legs piceous with paler tarsi. Head of rounded shape, somewhat wider than long (ratio 1.12), strongly narrowed posteriad behind eyes, posterior angles entirely obsolete; with three irregular impressions, one in

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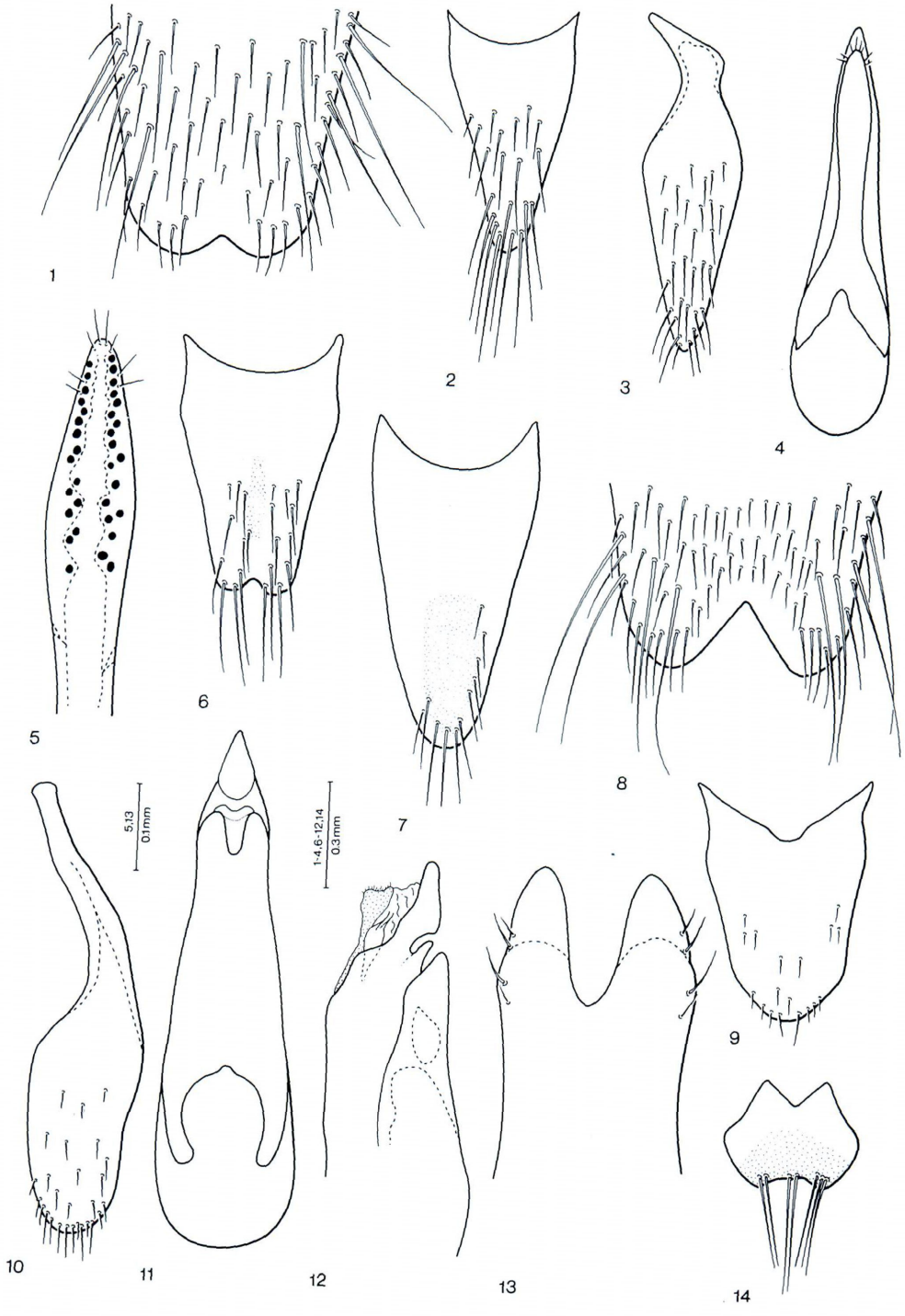
Figs. 1–14. —— 1–5. *Quedius aereipennis*: 1, apical portion of male sternite 8; 2, tergite 10 of male genital segment; 3, sternite 9 of male genital segment; 4, aedoeagus, ventral view; 5, apical portion of underside of paramere. —— 6. *Quedius kalganensis*: tergite 10 of female genital segment. —— 7. *Quedius wanyan*: tergite 10 of female genital segment. —— 8–14. *Quedius caelestis*: 8, apical portion of male sternite 8; 9, tergite 10 of male genital segment; 10, sternite 9 of male genital segment; 11, aedoeagus, ventral view; 12, apical portion of aedoeagus, lateral view; 13, apical portion of underside of paramere; 14, tergite 10 of female genital segment.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middle of frons and another one posterio-laterad of it on each side; eyes rather large and convex, tempora markedly shorter than eyes seen from above (ratio 0.55); no additional setiferous punctures between anterior frontal punctures; posterior frontal puncture situated close to posterio-medial margin of eye, separated from it by distance about equal to diameter of puncture, two punctures between it and posterior margin of head; temporal puncture situated slightly closer to posterior margin of eye than to posterior margin of head; tempora with a few very fine punctures; surface of head with very fine and dense microsculpture of transverse striae. Antenna slender, moderately long, segment 3 somewhat narrower and usually vaguely longer than segment 2, segment 4 distinctly, segment 5 slightly longer than wide, following segments gradually becoming shorter, outer segments about as long as wide, last segment as long as two preceding segments combined. Pronotum about as long as wide, widest at about posterior third, markedly narrowed anteriad, with lateral margins continuously arcuate with broadly rounded base, transversely convex, lateral portions not explanate; dorsal rows converging posteriad, each with three punctures; sublateral rows each with two punctures, posterior puncture situated behind level of large lateral puncture; microsculpture similar to that on head but still denser. Scutellum large, with variable number of fine to moderately coarse punctures (at least two fine punctures present in middle), surface with fine and dense microsculpture of transverse waves. Elytra long, at base about as long as pronotum at widest point, widened posteriad, at suture distinctly (ratio 1.22), at sides considerably (ratio 1.45) longer than pronotum at midline; punctation and pubescence moderately fine, rather sparse, transverse interspaces between punctures mostly two to three times as large as diameters of punctures; pubescence piceous; surface between punctures without microsculpture. Wings fully developed. Abdomen with tergite 7 (fifth visible) bearing distinct whitish apical seam of palisade fringe; first three visible tergites markedly impressed at base, each impression rather coarsely and deeply punctate, divided by obtusely elevated medial keel, remainder of tergal surface with only scattered, very fine punctures, middle portions of first two visible tergites extensively impunctate; fourth visible tergite similar to preceding three tergites, but basal impression only moderate and less coarsely punctate, with medial keel only slightly developed, remainder of tergite evenly, very finely punctate, without impunctate middle portion; visible tergites five and six very finely and rather sparsely, evenly punctate; pubescence piceous; surface between punctures with exceedingly dense and fine microsculpture of transverse striae. Middle and hind legs thin and long, with very long tarsi, last segments with long and strong claws; middle tarsus slightly longer than middle tibia, hind tarsus about as long as hind tibia, last segment of hind tarsus considerably longer than first segment.

Male. First four segments of front tarsus considerably dilated, sub-bilobed, each densely covered with modified, very long pale setae ventrally: segment two distinctly wider than apex of tibia (ratio 1.24); segment four narrower than

preceding segments. Tergite 8 with apical margin slightly, subangulately prolonged medially. Sternite 8 with four long setae on each side; with wide and very deep, sharply triangular medio-apical emargination, small triangular area before emargination flattened and smooth (Fig. 8). Genital segment with tergite 10 small, markedly narrowed toward narrowly arcuate apex, with setation quite reduced (Fig. 9); sternite 9 very long, with extremely narrow and elongate, slightly S-shaped basal portion, apical portion slightly asymmetrical, arcuate apically, with minute setae at apical margin (Fig. 10). Aedoeagus (Figs. 11–13) quite characteristic. Median lobe constricted at about apical third and then narrowed into subacute, basally sharply delimited apical portion; face adjacent to paramere with a large, markedly pigmented (black), transverse lamella, slightly emarginate medio-apically. Paramere quite large, enveloping median lobe to great extent, with delimited, almost parallel-sided, markedly pigmented (black) apical portion, apically divided into two short and stout branches separated at base by obtuse arc; apices of branches reaching to about apical margin of transverse lamella of median lobe; underside without sensory peg setae, but each branch with two pairs of minute setae posteriorly at lateral margin; internal sac without larger sclerotized structures.

Female. First four segments of front tarsus similar to those of male, but somewhat less dilated; segment two less distinctly wider than apex of tibia (ratio 1.16). Tergite 8 with apical margin evenly arcuate. Genital segment with tergite 10 highly modified, of transverse hexagonal shape, broadly, arcuately emarginate apically, with two very long setae in middle of emargination, and with two or three similar setae at lateral edge of emargination on each side (Fig. 14).

Length 5.8–6.7 mm.

Type material. Holotype (male) and allotype (female): China: "CHINA Yunnan 1993 50 km N Lijiang, 24.–29.6. Yulongshan Nat. Res. leg. E. Jendek & O. Sausa". In the Naturhistorisches Museum, Wien, Austria.

Paratypes: China: [Yunnan]: same data as holotype, 3♂♂, 4♀♀, in the Naturhistorisches Museum, Wien, in the National Science Museum (Nat. Hist.), Tokyo, Japan, and in the SMETANA collection, Ottawa, Canada; Lijiang, 1,800 m, 25.53N; 100.18E, 23.6.–21.7. 1992, S. BECVAR, 2♀♀ in the Naturhistorisches Museum, Wien, and in the SMETANA collection, Ottawa; Yulongxueshan NP near Baishui, ca. 30 km N Lijiang, 2,900–3,200 m, 7.–11.7. 1994, SCHILLHAMMER, 3♂♂ in the Naturhistorisches Museum, Wien, and in the SMETANA collection, Ottawa; Yulongxueshan NP, cca 40 km Lijiang , Heishui, ca. 3,000 m, 13.7. 1994, leg. JI, 2♂♂, 1♀, in the Naturhistorisches Museum, Wien; Heishui, 35 km N Lijiang, 27.13N; 100.19E, 1.–19.7. 1992, S. BECVAR, 2♂♂, 1♀, in the Naturhistorisches Museum, Wien, and in the SMETANA collection, Ottawa; 30 km N Lijiang, 3,000 m, 3. VII. 1990, L. and M. BOCÁK, 1♂ in the Naturhistorisches Museum, Basel, Switzerland. [Sichuan]: Mt. Emei, 2,800 m, 15.–16. VII. 1990, L. and M. BOCÁK, 1♂ in the Naturhistorisches Museum, Basel.

Geographical distribution. *Quedius caelestis* is at present known only from northwestern Yunnan and from Emei Shan in Sichuan.

Bionomics. No details are known about the collection circumstances of the specimens of the original series.

Recognition, comparison and comments. *Quedius caelestis* is a member of the *gardneri*-Group (SMETANA, 1988, 295) and shares all the character states of the group with *Q. gardneri* CAMERON, 1932, the only species of the group until now. The monophyly of the group is supported by several synapomorphies, particularly by the markedly, transversely impressed bases of abdominal tergites 3–6, each with longitudinal medial keel (less developed on tergite 6), and by the development of the paramere of the aedoeagus, which is very large, enveloping most of the median lobe, and is divided apically into two variably long branches, each of them lacking any sensory peg setae. As I already previously mentioned, it may be necessary to erect a separate taxon for the members of the *gardneri* Group. However, I prefer to postpone this until the completion of a revision (in preparation) of the world generic level taxa of the tribe Staphylinini.

Quedius caelestis is a very distinctive species that may be confused only with *Q. gardneri*; but both species differ in the male sexual characters, particularly by the shapes of the aedoeagi (Figs. 11–13 and figs. 233–235 in SMETANA, 1988, 428), and by some external characters, such as the impunctate scutellum in *Q. gardneri*, or the uniformly piceous pubescence on the elytra and on the abdomen in *Q. caelestis* (in *Q. gardneri* the pubescence of the elytra is yellowish, and the pubescence of the abdominal tergites is piceous, with intermixed, sparse yellowish hairs.

Etymology. The specific epithet is the Latin adjective *caelestis*, *-e* (pertaining to heaven, heavenly). It refers to the appearance of the species, particularly to the bright blue elytra.

Acknowledgments

The original draft of this paper was reviewed by two of my colleagues, Dr. D. E. BOUSQUET and Mr. A. DAVIES, at the Centre for Land and Biological Resources Research, Ottawa. Their comments eventually led to the improvement of the paper. Mr. Go SATO, from the same establishment, carefully finished all line drawings. Their help is gratefully acknowledged.

要　　約

A. SMETANA：中国産ツヤムネハネカクシ亜族に関する知見．4．ツヤムネハネカクシ属*Raphirus*亜属の1．—— 中国産ツヤムネハネカクシ属のうち，*Raphirus*亜属の2種を再記載し，青海省と云南および四川省からそれぞれ1新種を，*Q.* (*R.*) *wanyan* および *Q.* (*R.*) *caelestis* と命名して記載した．

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Elytra, Tokyo, **24** (1): 59–60, May 15, 1996

刊 行 物 紹 介

Fauna of New Zealand, Ko te Aitanga Pepeke o Aotearoa

南太平洋に浮かぶ島国ニュージーランド(NZ). 怪鳥モア（絶滅種）や巨大昆虫ウェタが生息するこの島じまは，独自の生物相をもつ地域として知られている．約8000万年前にゴンドワナ大陸から孤立したNZには，コウモリ以外の哺乳類は生息せず，代わりに鳥類が独自の進化をとげてキーウィやモアが現れるほどに多様化した．さらに食植性の大型鳥類が繁栄したことで，植物までもが葉を食べられないように，枝の間に細かく葉を飾るような独特な形態に進化した．このよく知られた事実からも，NZが独自の生物の進化を発展させた，生物地理学的に興味深い地域であることに，異論を唱える研究者はいない．また，日本とNZとは，同じ太平洋の周縁にある温帯の国として共通点も多い．分類にたずさわる研究者であれば，扱っている分類群が地球の反対側でどのような進化を遂げたのか，興味のあるところであろう．

そんな魅力のあるNZの節足動物相を，学術的なモノグラフ・シリーズとして出版しているのが，ここに紹介する「Fauna of New Zealand (FNZ)」である．FNZは，NZ最大の昆虫研究機関であるNZAC (The New Zealand Arthropod Collection) を統轄する Manaaki Whenua–Landcare

Research（以前のDSIR）から，年に2，3冊ずつ出されており，1982年に創刊されて，'95年までに全34編が出版されている．分類群別の内訳は，蛛形綱（ダニ目3編），甲殻綱（ヨコエビ目1編），昆虫綱（カマアシムシ目1編，カワゲラ目2編，カマキリ目1編，アザミウマ目2編，カメムシ目3編，ハエ目4編，コウチュウ目7編，ハチ目7編，チョウ目3編）となっている．

鞘翅類関係は7冊あり，以下のとおり．

No. 2	Osoriinae (Staphylinidae).	H. Pauline McColl, 1982, 96 pp.	$18.60
No. 3	Anthribidae.	B. A. Holloway, 1982, 272 pp.	$41.00
No. 6	Hydraenidae.	R. G. Ordish, 1984, 64 pp.	$18.60
No. 26	Tenebrionidae: catalogue of types and keys to taxa.	J. C. Watt, 1992, 70 pp.	$27.95
No. 28	Larvae of Curculionoidea: a systematic overview.	Brenda M. May, 1993, 226 pp.	$55.00
No. 29	Cryptorhynchinae (Curculionidae).	C. H. C. Lyal, 1993, 308 pp.	$65.00
No. 34	Anthicidae.	F. G. Werner & D. S. Chandler, 1995, 64 pp.	$26.50

ほとんどが種レベルの再検討を行なったモノグラフで，図も多く，ほぼ全種の分布図がつけられている．中にはカタログや属までのレヴィジョンもあるが，その場合でも全体図がふんだんに盛り込まれ，眺めているだけでも楽しい出版物になっている．内容は号によっても異なるが，執筆陣がNZのみならず英語圏の著名な分類学者により占められていること，また専任のFNZシリーズ編集者 C. T. Duval氏による厳しいチェックが入っていることからも，モノグラフとしての高いレベルが維持されている．全体図はNZAC専属のイラストレータD. Helmore氏によるものが多く，統一された図と体裁はシリーズを格調高く使いやすいものにしている．

ちなみに私がNZACを95年3月に訪れた際には，8人の昆虫学者が働いており，甲虫ではJ. Klimaszewski博士（ハネカクシ）と A. Larochelle氏（ゴミムシ）の2人が現役であった．G. Kuschel（ゾウムシ），J. C. Watt（ゴミムシダマシ）両博士とB. M. May女史（ゾウムシ）は，退官後Research Associatesになっているようで，ときおり出てきていた．D. Helmore氏とC. T. Duval氏はFNZの仕事を中心にしているようで，FNZがLandcare Res. の重要な事業の一つに位置づけられていることがわかる．価格相応のよい出版物だと思う．$はU.S.$で計算．

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（小樽市博物館・大原　昌宏）

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A New Species of the *Lathrobium pollens* Group (Coleoptera, Staphylinidae) from Mt. Yulongxue Shan in Yunnan Province, Southwest China

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Abstract A new species belonging to the *Lathrobium* (s. str.) *pollens* group is described and illustrated under the name of *L.* (s. str.) *naxii*. It was found from under dead leaves of subalpine forests on Mt. Yulongxue Shan in Yunnan Province, Southwest China.

Two species belonging to the *Lathrobium pollens* group have been reported from Jinlin Province, Northeast China, by LI and CHEN (1990, p. 16), CHEN *et al.* (1990, p. 66) and LI (1993, p. 30). After that, two species of the same group were described from Zhejiang Province, East China, by WATANABE and LUO (1993, p. 30), and two species from Yunnan Province, Southwest China, by WATANABE and XIAO (1994, p. 256).

From the middle of October to the middle of November, the authors had an opportunity of investigating the staphylinid fauna of Mt. Yulongxue Shan Nature Protective Area in Lijiang County of Yunnan Province, Southwest China, as members of the Sino-Japanese cooperative study on soil fauna in Southwest China.

During the investigation, an interesting species of apterous *Lathrobium* was obtained on Mt. Yulongxue Shan in Lijiang County of Yunnan Province, Southwest China. It seems to belong to the *L. pollens* group because of large body and transverse elytra. After a careful examination, however, it has become clear that the species can be distinguished from the other members of the species-group

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by different sexual character of abdomen in the male and configuration of male genitalia, and seems new to science. It will be described and illustrated in the present paper. The holotype of the new species to be described is deposited in the collection of the Shanghai Institute of Entomology, Academia Sinica, the allotype is preserved in the collection of the Kunming Institute of Zoology, and a paratype in the Laboratory of Entomology, Tokyo University of Agriculture.

Before going further, the authors wish to express their sincere thanks to Professor YIN Wen-ying of the Shanghai Institute of Entomology, Academia Sinica, and Professor Gentaro IMADATÉ of Tokyo Medical and Dental University, for their kind help through the Sino-Japanese cooperative study. Deep gratitude is also due to Visiting Professor Shun-Ichi UÉNO of Tokyo University of Agriculture, for his advice on the present study, and Professor Hiroshi TAMURA of Ibaraki University, Mito, Professor ZHANG Hanyun, Vice Director of Kunming Branch, Academia Sinica, and the members of the Sino-Japanese cooperative study for their kind assistance in the field.

Lathrobium (s. str.) ***naxii*** sp. nov.

(Figs. 1–5)

Body length: 8.1–9.0 mm (from front margin of head to anal end); 4.5–4.9 mm (from front margin of head to elytral apices).

Body elongate, nearly parallel-sided and somewhat depressed above. Reddish brown and moderately shining, with 4th to 10th antennal segments and legs except for coxae and femora slightly darker.

Male. Head subquadrate and moderately convex medially, slightly longer than broad (length/width = 1.03), widest at about posterior fourth and slightly narrowed both anteriad and posteriad; lateral sides weakly arcuate, frontal area between antennal tubercles transversely flattened and impunctate, provided with a large setiferous puncture inside each antennal tubercle; surface sparingly covered with distinct setiferous punctures which become much sparser on the vertexal area; eyes degenerative, extremely small and flat, invisible from dorsal side. Antennae elongate, extending to the middle of pronotum and not thickened apicad, proximal two segments polished, the remainings opaque, 1st robust and evidently dilated apicad, about three times as long as broad, 2nd constricted at the base, more than 1.5 times as long as broad but much shorter (2nd/1st = 0.42) and considerably narrower (2nd/1st = 0.75) than 1st, 3rd to the apicalmost almost equal in width to one another, 3rd long, about 2.5 times as long as broad, longer than 2nd (3rd/2nd = 1.60), 4th apparently longer than broad (length/width = 1.83) but distinctly shorter than 3rd (4th/3rd = 0.69), 5th to 7th equal in both length and width to one another, each remarkably longer than broad (length/width = 1.67), 8th to 10th equal in both length and width to one another, each about 1.5 times as long as broad, apicalmost fusiform, more than twice as long as broad and much

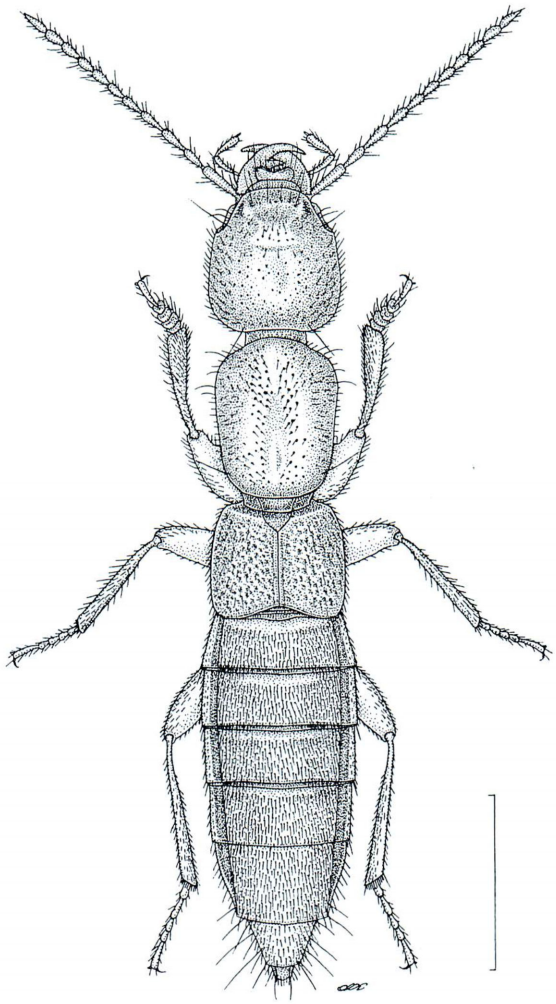


Fig. 1. *Lathrobium* (s. str.) *naxii* Y. WATANABE et XIAO, sp. nov, holotype, from Mt. Yulongxue Shan in Lijiang County of Yunnan Province, Southwest China. Scale: 2.0 mm.

longer than 10th (apicalmost/10th = 1.56), subacuminate towards the tip.

Pronotum oblong, evidently longer than broad (length/width = 1.23), a little longer (pronotum/head = 1.10) though somewhat narrower than head (pronotum/head = 0.92), widest behind anterior angles and gradually narrowed posteriad; lateral sides nearly straight in dorsal view except for the areas of anterior and posterior angles which are arcuate, frontal margin gently rounded, posterior margin almost truncate at the middle, anterior angles obtuse and not visible from above, posterior ones rounded; surface somewhat more coarsely and more numerously

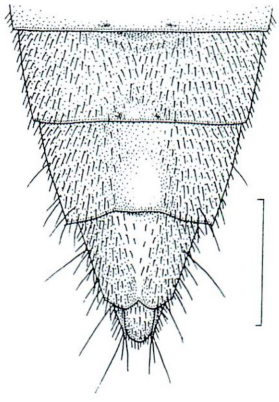


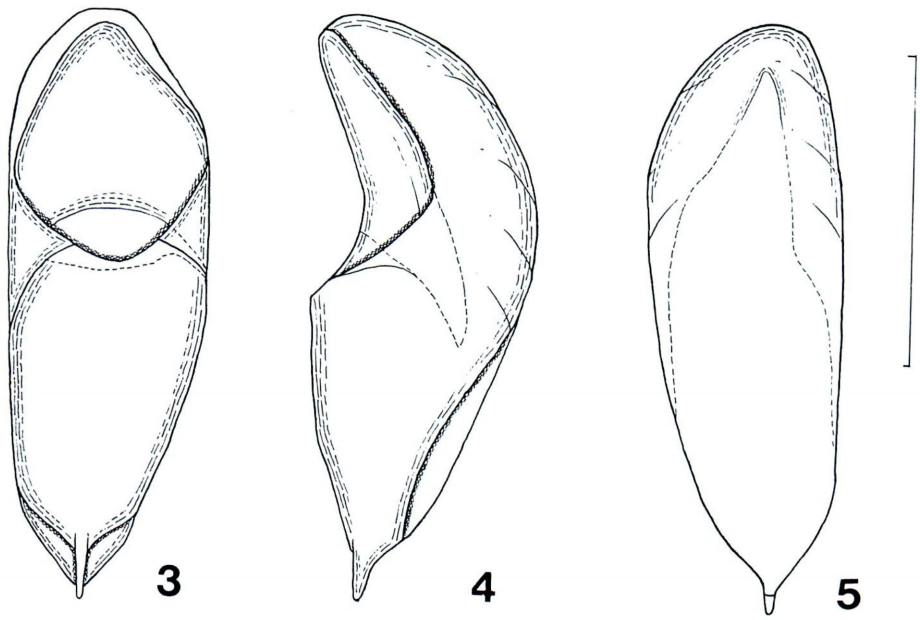
Fig. 2. Last four abdominal sternites in male of *Lathrobium* (s. str.) *naxii* Y. WATANABE et XIAO, sp. nov. Scale: 1.0 mm.

punctured than on head, bearing a narrow smooth longitudinal line throughout the length of pronotum. Scutellum subtriangular, almost smooth on the surface. Elytra oblong, slightly dilated apicad, a little transverse (width/length = 1.25) and slightly longer (elytra/pronotum = 1.07) though evidently shorter (elytra/pronotum = 0.69) than pronotum; lateral sides slightly arcuate, posterior margin emarginate at the middle and forming an obtuse re-entrant angle; posterior angles narrowly rounded; surface roughly and somewhat rugosely punctured, and covered with fine golden pubescence all over. Legs moderately long; profemur considerably thickened, though strongly constricted near the apex and excavated in apical half on the inner face, so that the anterior part of the excavation forms a subtriangular blunt tooth; protibia dilated apicad, hollowed in basal half on the inner face and provided with five or so transverse rows of comb-like yellowish setae in basal half within the hollow; meso- and metatibiae normal; 1st to 4th protarsal segments strongly dilated.

Abdomen elongate, slightly widened from 1st to 2nd visible segment, and then gradually narrowed towards 5th visible segment, though abruptly narrowed from 6th visible segment to anal end; basal four tergites each transversely depressed along the base; surface of each tergite closely covered with fine aciculate punctures and fine brownish pubescence; preapical sternite subtriangularly excised at the middle of posterior margin and slightly flattened at the middle in front of the excision; 5th visible sternite shallowly and broadly emarginate at the middle of posterior margin and widely glabrous before the emargination.

Genital organ moderately sclerotized except for dorsal side of median lobe, elliptical, more or less asymmetrical. Median lobe broad, with apical part abruptly narrowed towards the tip in ventral view. Fused paramere as broad as but slightly longer than median lobe, gradually tapered apicad, and then abruptly so at the tip, which is prolonged like a spearhead.

Female. Similar to male in facies and body size, but the 1st to 4th protarsal segments are not so widened, last visible abdominal sternite produced posteriad



Figs. 3–5. Male genitalia of *Lathrobium* (s. str.) *naxii* Y. WATANABE et XIAO, sp. nov.; ventral view (3), lateral view (4), and dorsal view (5). Scale: 0.5 mm.

at the median part of hind margin and gently rounded at the apex, which is closely fringed with very fine yellowish cilia.

Type series. Holotype: ♂, allotype: ♀, Mt. Yulongxue Shan (3,160 m alt.), Lijiang County, Yunnan Prov., Southwest China, 21–X–1995, XIAO N. leg.; Paratype; 1 ♀ (immature specimen), same locality and date as for the holotype, S. UÉNO leg.

Distribution. Southwest China (Yunnan Prov.).

Notes. The present new species belongs to the *L.* (s. str.) *pollens* group for the reason of large body size and transverse elytra, but can be distinguished from the members of the same species-group by the reddish colour, different second sexual character of abdomen in the male and configuration of male genitalia.

The type specimens were obtained from under dead leaves in subalpine coniferous forests, *Picea likiangensis* and *Abis georgei*, on Mt. Yulongxue Shan at an altitude of about 3,160 m.

Etymology. The specific name of this new species is given after the Naxi minority, which is one of the minorities in China occupying Lijiang County, in which lies Mt. Yulongxue Shan (type locality).

要　約

渡辺泰明・蕭　宁年：中国云南省の玉尤雪山から採集されたコバネナガハネカクシ種群に含まれる1新種．—— 1995年10月中旬からほぼ1カ月にわたって実施された，中日共同学術調査による「中国南西部における土壌動物相の研究」において，云南省北西部にそびえる玉尤雪山の，高度が約3,160 mの針葉樹林帯の林床から，コバネナガハネカクシ種群に含まれる1種が採集された．この種は，背面からは認めることができないほど複眼が縮小しているきわめて興味深い種で，詳細に検討した結果，新種と認められたので，下記のとおり命名・記載した．

Lathrobium (s. str.) *naxii* Y. WATANABE et XIAO, sp. nov.

本種は体長が8–9 mmほどで，上翅が長さより幅広く，後翅が退化していることによって，日本から記載されたコバネナガハネカクシに類似している．しかしながら，体色や頭部の点刻，また雄の腹部に表われる第二次性徴および交尾器の形状が他種とは明らかに異なることによって，容易に区別することができる．

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Elytra, Tokyo, **24** (1): 67–70, May 15, 1996

A New Apterous Species of the Genus *Aphodius* (Coleoptera, Scarabaeidae) Found on a High Mountain of Northern Taiwan[1)]

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Abstract An apterous aphodiine scarabaeid beetle belonging to the genus *Aphodius* is described from Mt. Shenmachen Shan of the Nanhu Mountains in the northern part of Taiwan, under the name of *Aphodius* (*Paremadus*) *nishikawai* sp. nov. It can be easily distinguished from other congeneric species by the shortened elytra with reduced humeral parts due to the absence of hind wings.

Through the courtesy of Dr. Shun-Ichi UÉNO, Emeritus curator of the National Science Museum (Nat. Hist.), Tokyo, I was given an opportunity of examining great many Taiwanese materials in the collection of the Museum. I found a single specimen of a strange scarabaeid beetle obtained by Dr. Y. NISHIKAWA on a high mountain, Mt. Shenmachen Shan of the Nanhu Mountains, in the northern part of Taiwan. It possesses a very interesting peculiarity: obviously shortened elytra with distinctly reduced humeri. The specimen seemed to be a member of the subgenus *Paremadus* of the genus *Aphodius* at first sight. I showed the specimen to one of my best friends in entomology, Dr. M. KIUCHI, for asking his opinion. After a careful examination, he kindly informed me that he agreed with my judgement. I am therefore going to describe it as a new species in the present paper.

I wish herewith to express my hearty thanks to Dr. Shun-Ichi UÉNO, who allowed me to study and describe the present species. Deep appreciation is also due to Dr. Makoto KIUCHI, the National Institute of Sericultural and Entomological Science, Tsukuba City, for his support in the course of this study. Thanks are also due to Dr. Yoshiaki NISHIKAWA, Ohtemon-Gakuin University, Osaka, for providing with the specimen.

The holotype to be designated will be deposited in the collection of the National Science Museum (Nat. Hist.), Tokyo.

1) This study is supported by the Grant-in-aid No. 01041099 for Field Research of the Monbusho International Scientific Reasearch Program, Japan.

Aphodius (*Paremadus*) *nishikawai* sp. nov.

(Figs. 1–4)

Body length: ca. 3.3 mm.

Oblong-ovate and rather distinctly constricted between fore and hind bodies; strongly convex above. Apterous. Brownish black, with apical margin of head, antero-lateral margins of pronotum, legs and ventral surface lighter in colour, antennae and mouth parts pale yellowish brown; dorsal surface glabrous and vitreously shining, ventral surface feebly and somewhat alutaceously shining.

Head rather large and transversely subhexagonal, raised posteriad; clypeus rather large, micro-shagreened and scattered with punctures, which are intermixed with smaller punctures, feebly convex in middle, steeply declined to apex, which is weakly emarginate, each side of the emargination rounded and slightly reflexed, with fronto-clypeal border very finely sulcate; gena feebly produced laterad, coriaceous and sparsely punctate, with the anterior area connected with clypeus rimmed along the outer margin; frons wide and rather short, sparsely scattered with minute punctures, which are often intermixed with larger punctures; vertex impunctate and inerm; eyes medium-sized.

Pronotum large and quadrate, 1.4 times as wide as long; apex slightly but

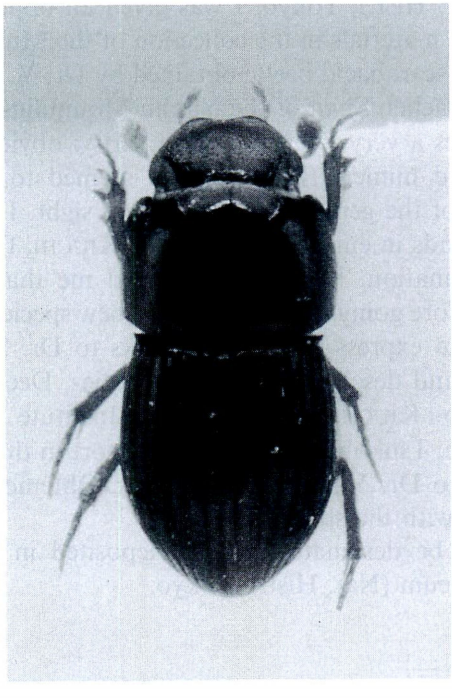


Fig. 1. *Aphodius* (*Paremadus*) *nishikawai* sp. nov., holotype ♂; habitus.

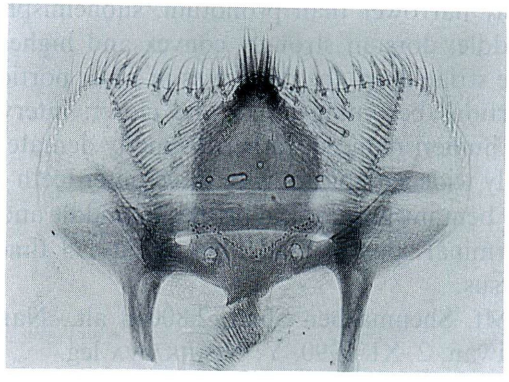
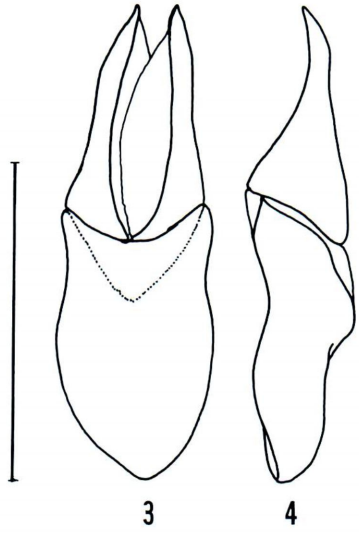


Fig. 2. *Aphodius* (*Paremadus*) *nishikawai* sp. nov., epipharynx.



Figs. 3–4. *Aphodius* (*Paremadus*) *nishikawai* sp. nov. —— 3, Male genitalia in dorsal view; 4, same in lateral view. Drawn by M. KIUCHI. (Scale: 1 mm.)

widely emarginate in middle, very feebly bisinuous, not bordered; base widely produced posteriad and finely rimmed, clearly bordered by a fine, sparsely punctured groove; front angles rounded, hind angles obtusely angulate in dorsal view; sides steeply declined to lateral margins, which are finely rimmed, the rim being feebly crenulate, the crenulation visible under 30× magnification; disc strongly convex, broadly smooth in middle, sparsely scattered with minute punctures, which are intermixed with larger but sparser punctures, with lateral portions somewhat alutaceous, scattered with larger and denser punctures. Scutellum triangular and almost impunctate.

Elytra obviously narrower than pronotum, subhemispherical and widest a little before the middle; dorsum strongly convex and highest at basal 1/3; disc punctato-striate, the striae deep, the punctures in inner portion small and sparse, those in lateral portions becoming larger and closer; intervals slightly convex, almost impunctate; humeri reduced, rather distinctly dentate; hind wings absent.

Fore tibia gently widened apicad, with three outer teeth and a terminal spur, whose apex is gently bent inwards; apical bristles of middle and hind tibiae unequal in length; upper terminal spur of hind tibia about 2/3 times the length of 1st segment of hind tarsus.

Holotype: ♂, Mt. Shenmachen Shan, 2,800 m alt., Nanhu Mts., Taichung Hsien, northern Taiwan, 2–XI–1990, Y. NISHIKAWA leg.

Notes. This is the first apterous species of the genus *Aphodius* to be recorded not only from East Asia but also from the Palearctic and Ethiopian Regions. Other than the absence of the hind wings, most features possessed by this species agree with those of the members of the subgenus *Paremadus*, *i.e.*, the pronotum with the base bordered by a punctured groove and the postero-lateral margins crenulate, the elytra clearly punctato-striate with humeral teeth, etc.

要　約

益本仁雄：北部台湾の高山で発見された後翅の退化したマグソコガネの1新種．—— 台湾北部の南湖大山系審馬陣山において，追手門学院大学の西川喜朗教授が発見された特異な形態をしたマグソコガネ属の甲虫を，国立科学博物館名誉研究員上野俊一博士のご好意で検討する機会を得た．この種は，日本に分布しているツヤチャグロマグソガネ亜属の特徴を多くそなえているが，上翅が明らかに短く，基部が狭くなっていろことが目につく．これは，後翅が退化しているためにほかならない．本種を新種と認め，*Aphodius* (*Paremadus*) *nishikawai* sp. nov. と命名した．後翅の退化したマグソコガネ属の種の発見は，旧北区およびエチオピア区で今回が初めてである．

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Melolonthidae (Coleoptera) from Thailand, III

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Abstract Three species of the melolonthine genus *Brahmina* are reported from Thailand and Laos. Two new species including one new subspecies, *B. mikado mikado*, *B. mikado mikoto* and *B. miyako* are described.

In the present study, I am going to report 3 species including 2 new species of the genus *Brahmina*. The genus *Brahmina* was established by BLANCHARD in 1850 with a brief description and at the same time 2 new species, *calva* and *comata* were introduced from northern India. REITTER (1902) diagnosed the genus and applied the generic name to the rhizotrogine group with hairy dorsal surface and cleft claw, and newly established 3 subgenera of *Brahmina*. On the contrary, BRENSKE (1892) applied the name to many heterogeneous groups with a combination of common characters of 10-segmented antenna and cleft claws. MOSER still extended interpretation of the genus and described many new species of *Brahmina*. Three species introduced herein belong to one of the groups which were mainly attributed by MOSER to *Brahmina*. Abbreviations used herein are shown in the first and second parts of this series. The following abbreviations are added for length of each character and for others: AC – length of antennal club, FT – length of antennal footstalk; FTX – total length of apical X segments of antennal footstalk; EW – elytral width; COS – width of sutural costa on elytron; TIS – length of longer metatibial spur; Ta-X – length of Xth metatarsal segment; MNHA – collection of the Museum of Nature and Human Activities, Hyôgo.

1. ***Brahmina parvula*** MOSER, 1915

(Figs. 1, 4, 8, 12, 14, 17(a–b), 19, 22, 27, 30)

Brahmina parvula MOSER, 1915, 137–138 (Yunnan).

Diagnosis. Length: 8.6–9.5 mm.

Male:— Head and pronotum rather reddish yellow as compared with elytra. CW/CL 3.6–4.4 (A 3.8, n = 20). Frons more or less concave on posterior half, not tuberculate. Vertex not carinate, but remarkable. IN/HW 0.57–0.63 (A 0.61, n = 20). AC > FT6, but AC < FT. Mentum more or less convex.

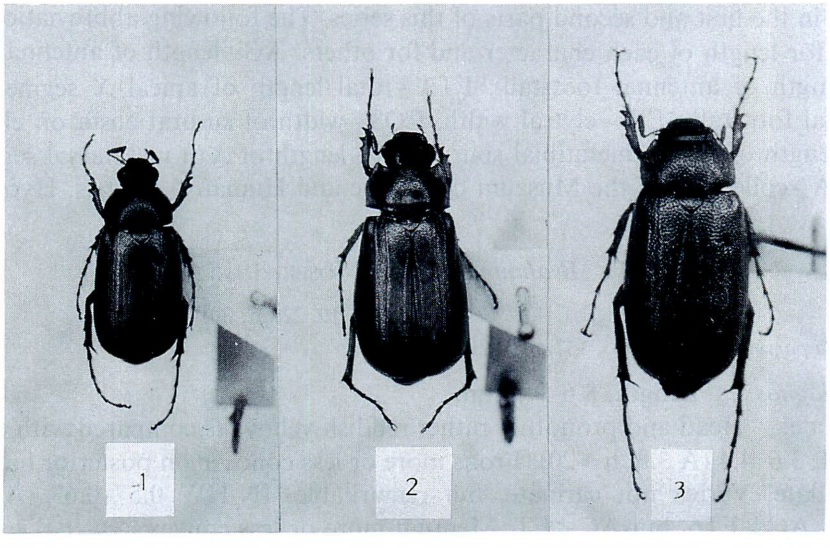
Pronotum somewhat sparsely and coarsely punctate, PL/PW 0.57–0.63 (A

0.60, n=20); anterior angles rectangular or subrectangularly obtuse, posterior ones obtuse; hairs on the anterior margin not so long; both antero-lateral and postero-lateral margins straight and not reflexed. Each elytron with a gradually widened, weak sutural costa and a very inconspicuous one near it, COS/EW 0.19–0.23 (A 0.21, n=20); epipleuron visible at most until the level of metacoxa in dorso-lateral view and thence vanished; marginal membrane conspicuous. Abdominal central area without pubescence.

Metacoxa without a furrow along the inner side of lateral margin. Metafemur rather stout; FW/FL 0.30–0.35 (A 0.33, n=20); bristles on the surface of metafemur about 2/13–1/4 times as long as its width. Metatibia rather stout. TIS≦Ta-I, Ta-I<Ta-II. Claw with a very slender apical tooth and a very stout and truncate inner one, the former often shorter than the latter. Male genitalia as shown in Fig. 22; internal sac of male genitalia with a band of minute bristles.

Female:— CW/CL 3.4–4.4 (A 4.0, n=20). Frons slightly or hardly concave before vertex. IN/HW 0.60–0.66 (A 0.63, n=20). AC>FT6 or AC<FT6 in Chinese specimens (AC<FT6 in the holotype), but AC≧FT6 in both Siamese and Vietnamese specimens. PL/PW 0.54–0.61 (A 0.59, n=20), but this parameter is smaller in Chinese specimens than in others. COS/EW 0.17–0.25 (A 0.21, n=20). Metafemur and metatibia very stout, FW/FL 0.35–0.41 (A 0.38, n=20); bristles on the surface of metafemur about 2/11–1/3 times as long as its width. Female genitalia as shown in Fig. 27; a fused coxite subtrapezoidal in shape and devoid of any remarkable projections along the anterior margin.

Distribution. China (Yunnan), Thailand [new record], Vietnam [new record].



Figs. 1–3.——1, *Brahmina parvula* MOSER; 2, *B. mikado* sp. nov.; 3, *B. miyako* sp. nov.

Specimens examined. 2♂♂, Doi Pui, near CM, N. Thailand, 11–V–1985, I. MATOBA leg.; 22♀♀, sl., 3–VI–1986, HH leg.; 1♀, Doi Suthep, CM, 29–V–1983, MS leg.; 1♀, Doi Sang, Thailand, 10～13–V–1990, K. KUME leg.; 1♂, CM, N. Thailand, V–1985, NK leg.; 14♂♂, 16♀♀, Doi Chiang Khian, CM, 27～29–V–1983 [OPU]; 10♂♂, 5♀♀, Sapa, Hoang Lien Son, N. Vietnam, 3～28–V–1993, N. KATSURA leg.; 1♀, near Sapa, N. Vietnam, VI–1994; 1♂, "China Yunnan", "*parvula* MOS", "Zool. Mus. Berlin"; 1♀, sl., "Zool. Mus. Berlin"; 1♀, sl., "*Brahmina parvula* Type ♀ MOS.", "Zool. Mus. Berlin".

2. ***Brahmina mikado*** T. ITOH, sp. nov.

(Figs. 2, 5, 9, 11, 15, 18(a–b), 21(a), 23(a–b), 28, 31)

Description. Length: 8.7–13.2 mm.

Male:— Head dark blackish brown, antenna, ventral surface and legs brown, pronotum reddish brown to brown, elytra light brown. Both dorsal and ventral surfaces moderately shining.

Clypeus subtrapezoidal, somewhat finely and somewhat densely punctate, CW/CL 3.3–4.4 (A 3.8, n = 15); anterior angles fully rounded and anterior margin not emarginate, fronto-clypeal suture well biarcuate. Frons with short erect hairs, transversely carinate close to fronto-clypeal suture, whose carina is medially interrupted; the area before the carina much sparsely punctate on the greater part and impunctate partly, but the intermediate area between the carina and vertex is seemingly much concave and punctate coarsely and densely as on clypeus. IN/HW 0.53–0.60 (A 0.58, n = 15). AC≒FT. Mentum slightly convex.

Pronotum somewhat sparsely and finely punctate, but the punctures are seemingly coarse because of deep concavity of their surroundings; PL/PW 0.54–0.57 (A 0.56, n = 15); anterior margin not hairy; anterior angles almost rectangular and posterior ones subrectangularly obtuse; both antero-lateral and postero-lateral margins reflexed and not serrate, the former sinuate but the latter sinuate or almost straight; disc with a conspicuous depression at the inner side of each antero-lateral margin near each anterior angle. Scutellum somewhat sparsely punctate. Each elytron with a sutural costa gradually widened posteriorly, a weak 1st costa close to the sutual one posteriorly and an obsolete narrow 2nd costa parallel to the 1st, sometimes almost vanished, COS/EW 0.15–0.18 (A 0.16, n = 15); epipleuron visible over the level of metacoxa in dorso-lateral view; marginal membrane not constantly visible, sometimes invisible. Pygidium coarsely punctate. Abdominal central area slightly or hardly with short pubescence.

Metacoxa without a furrow along the inner side of lateral margin. Metafemur somewhat stout, shining and sparsely punctate, FW/FL 0.30–0.33 (A 0.32, n = 15); bristles on the surface of metafemur about 1/6–1/4 times as long as its width. TIS < Ta-I, Ta-I < Ta-II. Claw with a moderately slender apical tooth and a very stout and truncate inner one. Male genitalia as shown in Fig. 23; internal sac with

several arranged cilia and a crescent spicule apically and with a wirely long, U-shaped spicule basically, and in addition bearing a few patches of cospicuously thick, recumbent setae dorsally and ventrally.

Female:— CW/CL 3.1–4.3 (A 3.7, n=15), IN/HW 0.55–0.62 (A 0.59, n=15), AC>FT6. Pronotum with a widely rimmed anterior margin; both antero-lateral and postero-lateral margins reflexed and almost straight, PL/PW 0.53–0.57 (A 0.55, n=15). COS/EW 0.13–0.17 (A 0.15, n=15). FW/FL 0.35–0.40 (A 0.37, n=15); bristles on the surface of metafemur about 2/11–3/10 times as long as its width. TIS=Ta-I, Ta-I<Ta-II. Female genitalia as shown in Fig. 28; a fused coxite subtrapezoidal and devoid of any remarkable projections along the anterior margin.

Distribution. Northern to Central Thailand.

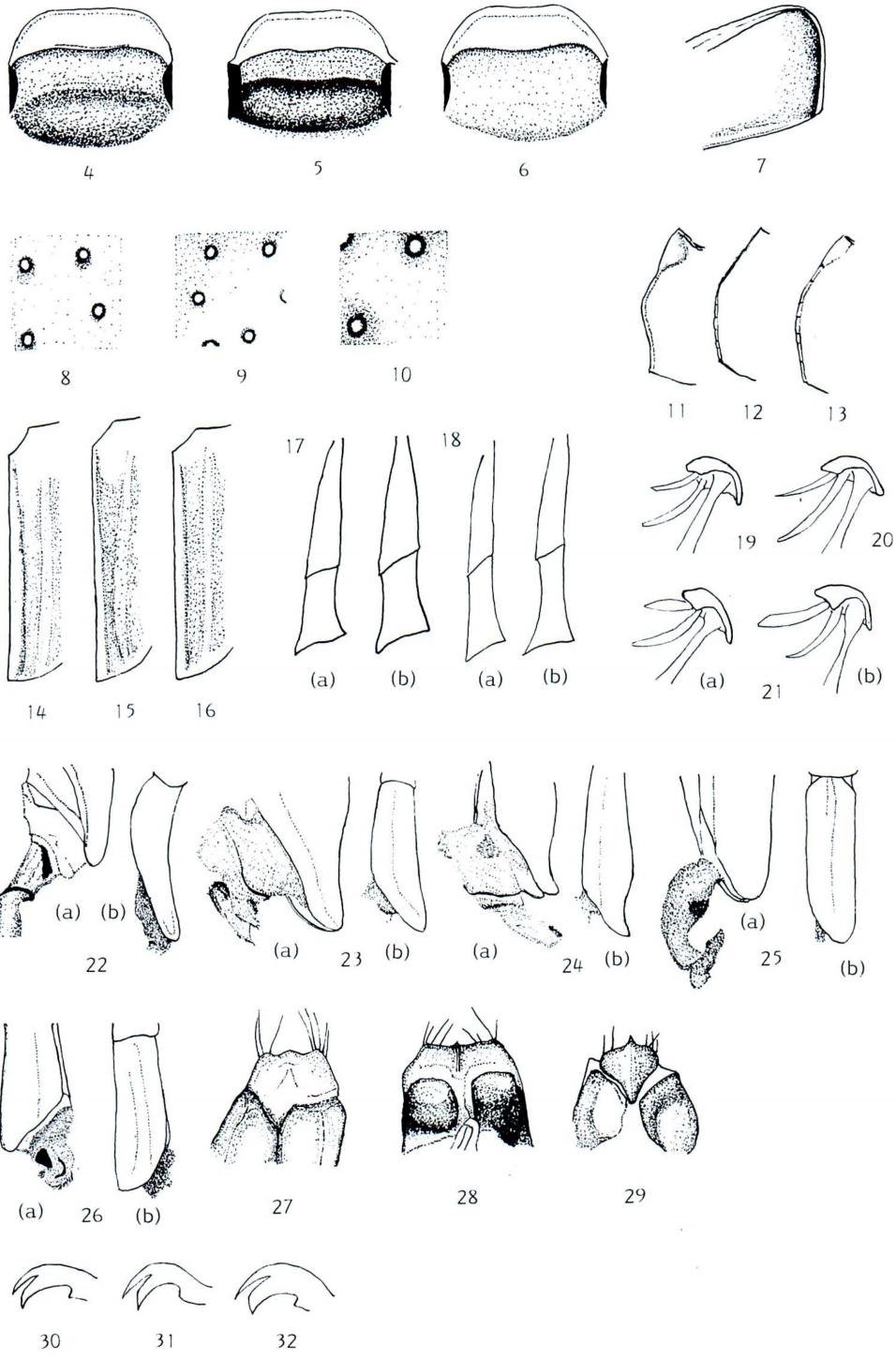
Holotype: ♂, Doi Suthep, CM, N. Thailand, 23–V–1983, MS leg. Allotype; ♀, same data as for the holotype. Paratypes: 5♂♂, 4♀♀, same data as for the holotype; 6♂♂, 6♀♀, sl., 29–V–1983, MS leg.; 2♂♂, 1♀, sl., 23–V–1980, MT leg.; 2♂♂, 5♀♀, sl., 1~4–VI–1980, MT leg.; 3♂♂, 5♀♀, sl., 26~28–V–1982, AN leg.; 1♂, Phuping Palace, CM, 25–V–1983, MS leg.; 50♂♂, 35♀♀, CM, N. Thailand, V~VI–1985; 4♂♂, 9♀♀, sl., VI–1986, NK leg.; 3♂♂, 3♀♀, Doi Chiang Khian, CM, 27–V–1983 [OPU]; 1♂, Fang, CM, 14–V–1983 [OPU]; 1♀, Sanean Salai, Nan, N. Thailand, 17–V–1993, S. OHMOMO leg.: 1♀, Maeta Teak-replantation Forest, Lang Phrae Prov., N. Thailand, 18–V–1985, MS leg.; 2♀♀, Doi Pa Muang, Hang Chat, Lampang, N. Thailand, 19–V–1985, MS leg.; 1♀, Pukhieo, Chiayaphum, NE. Thailand, 5–VI–1986, P. EK-AMNUAY leg.; 3♀♀, Khao Yai, C. Thailand, 15–VI–1983 [OPU]. Holo-, allo- and 2 paratypes are deposited in MNHA, 4 paratypes in ZMHU, 9 in OPU and the remaining 138 in the author's collection.

Brahmina mikado mikoto T. ITOH, subsp. nov.

(Figs. 21(b), 24(a–b))

Length: 9.8–13.9 mm.

Figs. 4–32. —— 4–6. Frons (♂); 4, *B. parvula*; 5, *B. mikado* sp. nov.; 6, *B. miyako* sp. nov. —— 7. Metacoxa [*B. miyako* sp. nov.]. —— 8–10. Punctures on pronotum; 8, *B. parvula*; 9, *B. mikado* sp. nov.; 10, *B. miyako* sp. nov. —— 11–13. Lateral margin of pronotum; 11, *B. mikado* sp. nov.; 12, *B. parvula*; 13, *B. miyako* sp. nov. —— 14–16. Elytron; 14, *B. parvula*; 15, *B. mikado* sp. nov.; 16, *B. miyako* sp. nov. —— 17–18. Left metatibia in ventral view [(a) ♂, (b) ♀]; 17, *B. parvula*; 18, *B. mikado* sp. nov. —— 19–21. Metatibial apical spurs (♂); 19, *B. parvula*; 20, *B. miyako* sp. nov.; 21(a), *B. mikado mikado* sp. nov., (b), *B. mikado mikoto* subsp. nov. —— 22–26. Male genitalia [(a) dorso-lateral view, (b) lateral view]; 22, *B. parvula*; 23, *B. mikado mikado* sp. nov.; 24, *B. mikado mikoto* subsp. nov.; 25, *B. miyako* sp. nov.; 26, *B. brevipilosa* [holotype]. —— 27–29. Female genitalia; 27, *B. parvula*; 28, *B. mikado* sp. nov.; 29, *B. miyako* sp. nov. —— 30–32. Claw of protarsus; 30, *B. parvula*; 31, *B. mikado* sp. nov.; 32, *B. miyako* sp. nov.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The present subspecies is distinguishable from the nominotypical one by the following points: 1) distinctly larger parameres of male genitalia and their structure; 2) structure of internal sac of male genitalia [which basically resembles that of the nominotypical one, but is armed with 2 completely separated, wirely long spicules instead of a U-shaped spicule]; 3) in male, the usually shorter one of metatibial apical spurs more developed than the longer one and becoming spatulate. Arithmetic data are as follows: ♂ (n=10)–CW/CL 3.5–4.1 (A 3.8); IN/HW 0.53–0.58 (A 0.55); PL/PW 0.53–0.58 (A 0.56); COS/EW 0.13–0.17 (A 0.16); bristle length of metafemur/FW about 2/11–1/4. ♀ (n=10)–CW/CL 3.5–4.3 (A 3.9); IN/HW 0.55–0.59 (A 0.57); PL/PW 0.54–0.57 (A 0.55); COS/EW 0.13–0.17 (A 0.15); FW/FL 0.36–0.38 (A 0.37); bristle length of metafemur/FW about 2/11–3/10.

Distribution. Laos.

Holotype: ♂, Vang Vieng, P. Vientiane, 25～26–V–1994, K. MIURA leg. Allotype: ♀, same data as for the holotype. Paratypes: 106♂♂, 94♀♀, same data as for the holotype; 3♂♂, sl., V–1991; 4♂♂, 11♀♀, sl., 1–V–1994, WAKAHARA leg.; 3♂♂, 2♀♀, Xieng Khouang, Laos, V–1993, WAKAHARA leg. Holo-, allo- and 2 paratypes are deposited in MNHA, 4 paratypes in ZMHU, and the remaining 217 in the author's collection.

Notes. In female, the shorter one of the metatibial apical spurs is somewhat spatulate, but is not so long as in the male.

3. ***Brahmina miyako*** T. ITOH, sp. nov.

(Figs. 3, 6, 7, 10, 13, 16, 20, 25(a–b), 29, 32)

Description. Length: 11.5–15.7 mm.

Male:— Head, pronotum and legs reddish brown, antenna and elytra brown, ventral surface dark brown, but the abdomen is sometimes light brown. Pygidium brown to dark brown. Both dorsal and ventral surfaces dully shining and entirely pubescent.

Clypeus subtrapezoidal, somewhat finely and somewhat densely punctate. CW/CL 3.3–4.1 (A 3.8, n=8); anterior angles fully rounded, anterior margin not emarginate and fronto-clypeal suture well biarcuate. Frons flat, coarsely and densely punctate. Vertex not carinate, though remarkable. IN/HW 0.58–0.65 (A 0.62, n=8), AC≦FT. Mentum slightly convex.

Pronotum somewhat sparsely and coarsely punctate, the punctures seemingly coarse because of deep concavity of their surroundings, PL/PW 0.55–0.58 (A 0.57, n=8); anterior margin with somewhat long, erect hairs; anterior angles rectangular and posterior ones obtuse; both antero-lateral and postero-lateral margins straight, the former widely reflexed and the latter normally reflexed narrowly. Scutellum sparsely punctate. Each elytron with a sutural costa gradually widened posteriorly and a weak 1st costa somewhat parallel to the sutural one and vanished before

the apical knob, COS/EW 0.18–0.20 (A 0.19, n=8); epipleuron almost invisible in dorso-lateral view; marginal membrane almost invisible, but sometimes visible partly. Pygidium much coarsely and slightly rugosely punctate. Abdomen entirely covered with short pubescence.

Metacoxa with a furrow along the inner side of lateral margin. Metafemur somewhat stout, shining, sparsely punctate and entirely pubescent, FW/FL 0.30–0.33 (A 0.31, n=4); bristles on the surface of metafemur about 3/10–9/25 times as long as its width. TIS < Ta-I, Ta-I < Ta-II. Claw with a moderately slender apical tooth and a very stout and truncate inner one. Male genitalia as shown in Fig. 24; internal sac with a patch of short bristles in the basal area and a group of very minute granular bristles in the subapical area.

Female:— CW/CL 3.4–4.1 (A 3.8, n=3). Frons flat or feebly convex, IN/HW 0.61–0.64 (A 0.6, n=3), AC≒FT6. PL/PW 0.54–0.56 (A 0.55, n=3), COS/EW 0.15–0.19 (A 0.17, n=3), FW/FL 0.37–0.38 (A 0.37, n=3); bristles on the surface of metafemur about 3/10–2/5 times as long as its width, TIS≦Ta-I, Ta-I < Ta-II. Female genitalia as shown in Fig. 29; a fused coxite with a remarkable projection along the anterior margin.

Distribution. Northern Thailand.

Holotype: ♂, Doi Pui, CM, N. Thailand, 9–V–1985 H. NARA leg. Allotype: ♀, same data as for the holotype. Paratype: 1♂, same data as for the holotype; 4♂♂, CM, V–1985, NK leg.; 2♂♂, 2♀♀, Doi Chiang Khian, CM, N. Thailand, 27–V–1983 [OPU]. Holo- and allotypes are deposited in MNHA, 3 paratypes in OPU, 1 in ZMHU and the remaining 5 in the author's collection.

Table 1. Differences between *Brahmina miyako* sp. nov. and *B. brevipilosa*.

	B. miyako sp. nov.	*B. brevipilosa*
Fronto-clypeal suture	distinctly biarcuate	feebly biarcuate
Pronotal antero-lateral margin	widely reflexed near the anterior angle	normally reflexed narrowly near the anterior angle
PL/PW (♂) (♀)	0.55–0.58 (A 0.57) 0.54–0.56 (A 0.55)	0.54 0.51
Sutural costa	distinct and wide	weak and narrow
Width of sutural costa / elytral width	♂–ca. 0.18–0.20 (A 0.19) ♀–ca. 0.15–0.19 (A 0.17)	♀–ca. 0.12 ♀–ca. 0.13
Inner side of metacoxal lateral margin	with a furrow	without a furrow
Parameres of male genitalia	slender	stout

Notes. This new species is closely allied to *B. brevipilosa* MOSER, 1918, but is distinguishable from the latter by the diagnoses given in Table 1.

要　　約

伊藤　武：タイのコフキコガネ科の研究，III. —— 本橋においては，アカチャコガネ*Brahmina*属3種を取り扱った．*B. parvula* MOSERをタイおよびベトナムから初めて記録し，1新亜種を含む2新種，*B. mikado mikado*（タイ），*B. mikado mikoto*（ラオス）および*B. miyako*（タイ）の記載を行った．

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Literature shown in Parts I and II of this series is omitted.

Elytra, Tokyo, **24** (1): 79–84, May 15, 1996

Two New Species of the Genus *Paratrichius* (Coleoptera, Scarabaeidae) from Southern China

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Abstract Two new trichiine beetles of the genus *Paratrichius* are described from China. *Paratrichius tigris* sp. nov. is related to *P. vitalisi* BOURGOIN from Vietnam. *Paratrichius riekoae* sp. nov. resembles *P. septemdecimguttatus* VOLLENHOVEN from Japan.

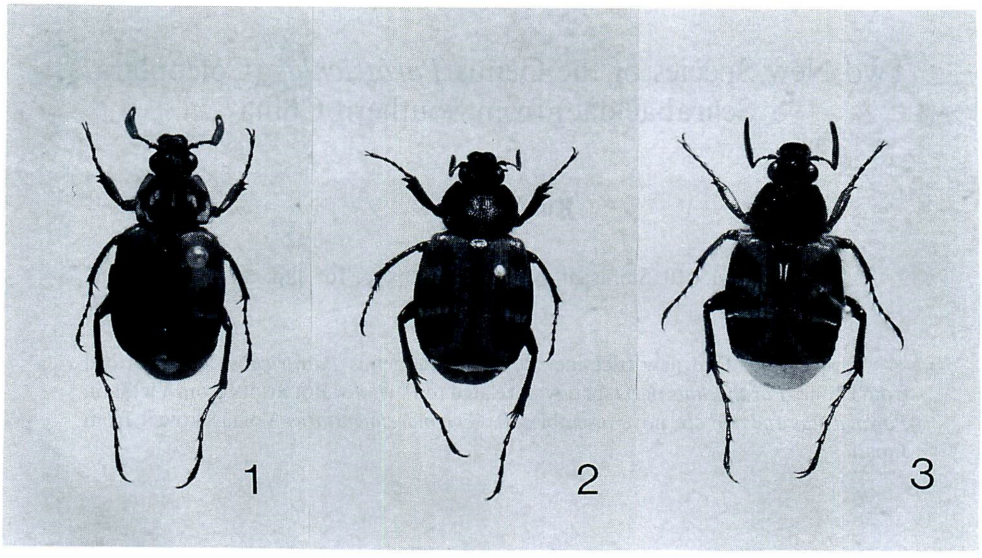
In this paper, the author describes two new *Paratrichius* species, *P. tigris* sp. nov. and *P. riekoae* sp. nov. from China. Generic definition is briefly written in IWASE (1993). The holotypes will be preserved in the National Science Museum (Nat. Hist.), Tokyo.

Paratrichius tigris sp. nov.

(Figs. 1–2, 4, 6–7)

Male. Elongate oval. Black, with antenna, palpi, posterior part of anterior femur, inner part of anterior tibia and anterior part of ventral face of middle femur light brown, elytron yellowish brown, with sutural, lateral and posterior margins and three spots black, three black spots situated along lateral border of elytron: anterior one the smallest, situated behind humeral calus, middle one not reaching lateral black border, posterior one the largest, reaching lateral border. Ventral surface, head, pygidium and legs shining, pronotum, scutellum and elytra opaque. Body decorated with yellow cretaceous markings: pronotal margination decorated along all borders, though interrupted before the middle of lateral margins, a short medial line on pronotum, shortened in front and behind, a pair of longitudinal spots on both sides of pronotal medial line, a short longitudinal line situated just behind scutellum on sutural interval of each elytron, most surface of pygidium, lateral spots of third to fifth abdominal sternites.

Clypeus wider than long (L/W = 0.9), widest at the middle, depressed at sides, weakly raised along anterior border; lateral border arcuate, anterior angle rounded, anterior border weakly emarginate; clypeal surface transversely reticulate, densely clothed with yellow long erect hairs. Frons longitudinally reticulate, rather densely clothed with yellow long erect hairs. Antennal club 1.6 times as long as footstalk,



Figs. 1–3. Dorsal aspect.——1, *Paratrichius tigris* sp. nov., ♂; 2, ditto, ♀; 3, *P. vitalisi* BOURGOIN (Sapa, Vietnam).

inner surface of first lamella with a longitudinal groove.

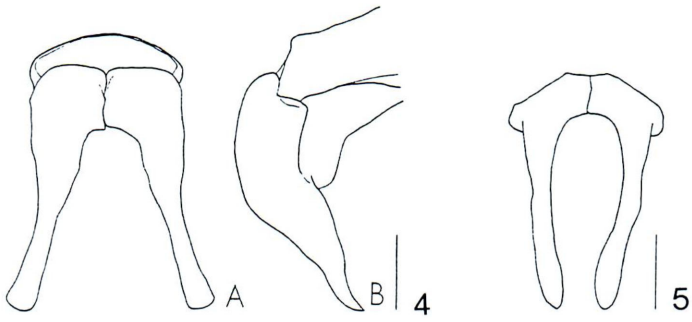
Pronotum weakly convex, wider than long (L/W = 0.9), widest at the middle, narrowly marginate along anterior and lateral borders, rather widely marginate and thickened before scutellum; anterior angle produced with apex rectangular, lateral borders almost parallel in posterior half, obtusely curved at middle, and moderately convergent in anterior half, posterior angle obtuse, posterior border rounded and somewhat sinuate near posterior angles; surface rather densely, but not strongly punctate, densely covered with yellow long erect hairs.

Scutellum semicircular, wider than long (L/W = 0.8), sparsely punctate, sides with scattered short hairs.

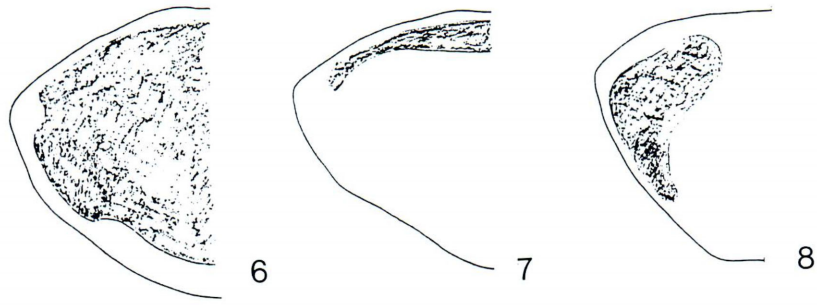
Elytra longer than wide (L/W = 1.1), widest before the middle, lateral border weakly arcuate, posterior angle rounded, each elytron with posterior border rounded; surface of elytron with five striae between suture and shoulder, rather densely clothed with minute setae, hairy in front of shoulder; striae each with a row of small horseshoe-shaped punctures; most intervals weakly costate and impunctate, second one flat, wider than adjacent ones, rather densely punctate; shoulder prominent.

Pygidium wider than long (L/W = 0.8), moderately convex, densely clothed with yellow hairs; greater part of surface covered with cretaceous materials, and the remaining surface along all borders aciculate.

Greater part of ventral surface aciculate and densely hairy, hairs especially long on metasternum.



Figs. 4–5. Male genitalia. —— *Paratrichius tigris* sp. nov., A: caudal view, B: lateral view; 5, *P. vitalisi* BOURGOIN (Sapa, Vietnam), caudal view. (Scale: 0.5 mm.)



Figs. 6–8. Caudal view of pygidium, indicating marking of cretaceous materials. —— 6, *Paratrichius tigris* sp. nov., ♂; 7, ditto, ♀; 8, *P. riekoae* sp. nov.

Anterior femur lacking longitudinal ridge on anterior face; anterior tibia with two external teeth, lacking terminal spur; posterior tarsus 1.5 times as long as tibia.

Genitalia as shown in Fig. 4.

Female. Different from male as follows: yellow cretaceous materials almost absent, only basal margin of pygidium covered with them; antennal club short, as long as footstalk; pronotum shining, more strongly convex and more strongly punctate; scutellum shining; elytral black spots larger; pygidium flattened near apex, pygidial hairs shorter; anterior tibia with a terminal spur.

Holotype: ♂, VI–1994. Qing Ling, 1,100 m above sea-level, Shaliangzi, Zhouzhi Pref., Shaanxi, China; paratype 1♀, same data as the holotype.

This new species resembles *Paratrichius vitalisi* BOURGOIN (Figs. 3, 5) from Vietnam (type locality: Lao Kay), but is different from the latter in the following points: clypeus not reflexed (strongly reflexed in the latter); pronotum decorated with yellow markings in male (lacking yellow marking in the latter); scutellum black (brown in the latter); external border of paramere of male genitalia almost straight just behind base (rather strongly emarginate in the latter).

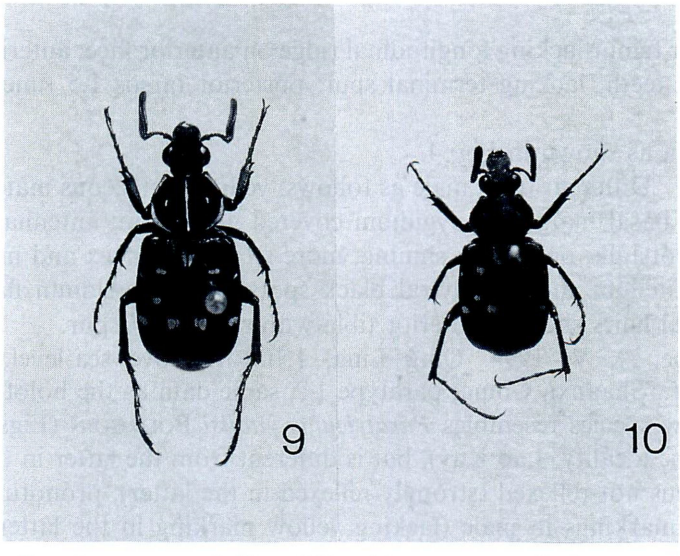
Paratrichius riekoae sp. nov.

(Figs. 8–9, 11)

Male. Elongate-oval. Black with antenna, posterior part of anterior femur, inner part of anterior tibia and anterior tarsus brown. Ventral surface, clypeus, elytral shoulders, pygidium and legs shining; frons, pronotum, scutellum and elytra except for shoulders opaque. Body decorated with pale yellowish cretaceous markings as follows: a median line, a pair of short discal spots and lateral marginal lines, which are interrupted at the middle on pronotum, six round spots on each elytron, a pair of large lateral spots on pygidium, greater part of anterior coxa, anterior part of prosternum, a pair of small spots on mesosternum, greater part of mesepisternum, mesepimeron and third to fifth abdominal sternites, lateral spots of second abdominal sternite, anterior part of sixth one.

Clypeus wider than long (L/W=0.9), widest at the middle, feebly depressed at sides, thickened along anterior border; lateral border arcuate, anterior angle rounded, anterior border obtusely emarginate; clypeal surface transversely reticulate. Frons longitudinally reticulate anteriorly, densely and finely punctate posteriorly. Antennal club 2.0 times as long as footstalk; inner surface of first lamella with a longitudinal groove.

Pronotum lightly convex, nearly circular, wider than long (L/W=0.9), widest just before posterior angles, narrowly marginate along anterior and lateral borders, rather widely marginate and thickened before scutellum; anterior angle distinctly produced anteriad, with apex rectangular, lateral borders curved at the middle,



Figs. 9–10. Dorsal aspect.——9, *Paratrichius riekoae* sp. nov.; 10, *P. septemdecimguttatus* VOLLENHOVEN (Nagasaki, Japan).

almost parallel posteriorly, convergent anteriorly, posterior angle very obtuse, posterior border rounded; surface rather densely and sharply, but not strongly punctate, rather densely bearing short yellowish setae along anterior and lateral borders, setae becoming somewhat longer near posterior angles, median line weakly depressed.

Scutellum semicircular, wider than long (L/W = 0.6), hairless, rather densely, but not strongly punctate laterally, impunctate medially.

Elytra longer than wide (L/W = 1.2), widest at the middle, lateral border weakly arcuate, posterior angle rounded, posterior border of each elytron rounded; each elytron with five striae between suture and shoulder, rather sparsely clothed with minute setae; striae with a row of small umbilicate or horseshoe-shaped punctures; intervals weakly convex; shoulder prominent.

Pygidium wider than long (L/W = 0.7), strongly convex behind the middle, concentrically aciculate, densely clothed with short yellowish setae, which become longer near apex.

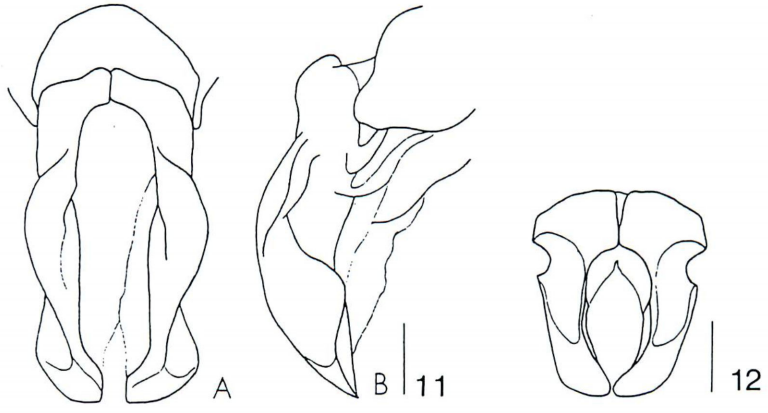
Ventral surface densely clothed with long yellowish setae, metasternum strongly convex ventrad, flattened and densely punctate medially, and transversely aciculate laterad. Abdominal sternites transversely aciculate except for posterior 1/3 of the sixth one, which is almost smooth.

Anterior femur with a longitudinal serrated carina on anterior face; anterior tibia with two external teeth, lacking terminal spur; posterior tarsus about twice as long as posterior tibia.

Male genitalia as shown in Fig. 11.

Holotype: ♂, VI–1994. Qing Ling Mountains, 1,100 m above sea-level, Shaliangzi, Zhouzhi Pref., Shaanxi, China.

This new species very closely resembles *Paratrichius septemdecimguttatus*



Figs. 11–12. Male genitalia. —— 11, *Paratrichius riekoae* sp. nov., A: caudal view, B: lateral view; 12, *P. septemdecimguttatus* VOLLENHOVEN (Nagasaki, Japan), caudal view. (Scale: 0.5 mm.)

VOLLENHOVEN (Figs. 10, 12) from Japan, though different from the latter in the following points: pronotum rather sharply and more finely punctate (indistinctly punctate in the latter); pronotal anterior angle rectangular (obtusely rounded in the latter). The shape of male genitalia is distinctly different between the two species, the dorsal face of paramere being flat in the latter. MA (1995) recorded *P. septemdecimguttatus* from China, and illustrated the male genitalia, which are different from those of the Japanese specimens, and also different from the new species. MA's *P. septemdecimguttatus* seems to be an undescribed species.

Acknowledgement

The author wishes to thank Dr. S.-I. UÉNO of the National Science Museum (Nat. Hist.), Tokyo, for reviewing the manuscript of this paper, and also M. FUJIOKA and R. MURAMOTO for various helps given in the course of this study.

要　　約

岩瀬一男：中国南部産の *Paratrichius* 属の2新種．—— コガネムシ科トラハナムグリ類の *Paratrichius* 属に属する2新種を記載した．*P. tigris* sp. nov. はベトナム北部を原産地とする *P. vitalisi* BOURGOIN に似ているが，小盾板の色彩で区別できる．*P. riekoae* sp. nov. は日本産のジュウシチホシトラハナムグリ *P. septemdecimguttatus* VOLLENHOVEN によく似ているが，雄の交尾器の形態はまったく異なる．

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Elytra, Tokyo, **24** (1): 85–95, May 15, 1996

Studies on the Buprestidae (Coleoptera) of Asia

1) Taxonomical Notes on *Ovalisia kheili* and Description of its New Relative

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Abstract *Ovalisia kheili* (OBENBERGER, 1925) from China is redescribed based on the holotype, and its new relative is described from Taiwan under the name of *O. tapanensis* sp. nov.

Some specimens of a buprestid beetle collected in Taiwan looked similar to *O. kheili* (OBENBERGER, 1925) from China, but did not agree with it in certain morphological features. After a careful examination, it was found that these Taiwanese specimens belonged to a new species. In this paper, I am going to redescribe *O. kheili* (OBENBERGER, 1925) on the basis of its holotype and in comparison with it, will describe the Taiwanese species under the name *O. tapanensis* sp. nov.

I wish to express my sincere thanks to Dr. Shun-Ichi UÉNO of the National Science Museum (Nat. Hist.), Tokyo, and Mr. Masatoshi TAKAKUWA, Kanagawa Prefectural Museum of Natural History, for their kindness in critically reading the original manuscript and offering invaluable suggestions, to Dr. Yoshihiko KUROSAWA, former head of the Department of Zoology, National Science Museum (Nat. Hist.), Tokyo, for his constant guidance throughout this study, and also to Mr. Kôyô AKIYAMA, Yokohama, for his support on my study. Deep indebtedness is also due to Dr. Svatopluk BÍLÝ of the Department of Entomology, National Museum of Czech Republic, and Dr. Malcom D. KERLEY of the Department of Entomology, The Natural History Museum, London, for their kind loan of the holotype specimens, to Dr. Roger-Paul DECHAMBRE of the Laboratoire d'Entomologie, Muséum national d'Histoire naturelle, Paris, for kind arrangement of the loan of the type specimens, and to Mr. Masahiro TANAKA, Kobe, for kind offer of material.

Ovalisia kheili (OBENBERGER, 1925)

(Figs. 1–7)

Lampra kheili J. OBENBERGER, 1925, Acta Soc. ent. čech., **21** [1924], pp. 100–101.
Ovalisia kheili: Y. KUROSAWA, 1976, Coleopterists' News, Tokyo, (36), p. 3.

Holotype. Body elongated ovate, greenish with aeneous tinge; head greenish with aeneous tinge on reticulations, frons, clypeus and labrum concolorous with head, vertex with a small longitudinal black spot on median line; pronotum greenish with aeneous tinge; elytra elongate, greenish, with aeneo-cupreous tinge in lateral part outside 8th interval, though the margin is greenish, each with four blackish spots: three ranged along suture and the remaining one just outside the 2nd spot.

Head narrower than the base of pronotum; vertex convex with median groove narrow and running from vertex to the top of frons; frons evenly convex though slightly depressed along median line, and forming an inverted pentagon between eyes; clypeus transverse, 3.0 times as wide as long, feebly depressed between antennal cavities, with anterior margin triangularly emarginate, clypeal suture invisible; antennal cavities small and internally surrounded by arcuate ridges; surface coarsely and shallowly punctate, the punctures separated from one another by broad reticulation, each with a short semirecumbent silver-whitish hair; eyes with internal margins feebly sinuate and gently convergent to vertex.

Antennae lost except 1st and 2nd segments; 1st obconical; 2nd globular, about 2/5 times as long as 1st (according to the original description, "Antennis

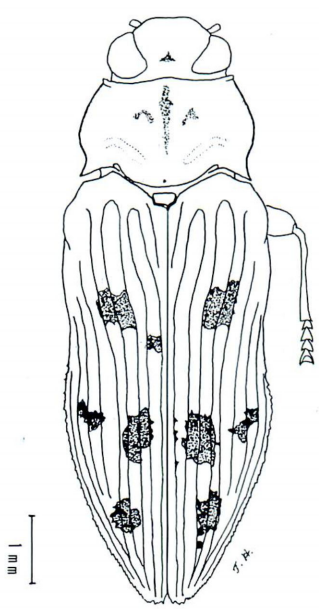


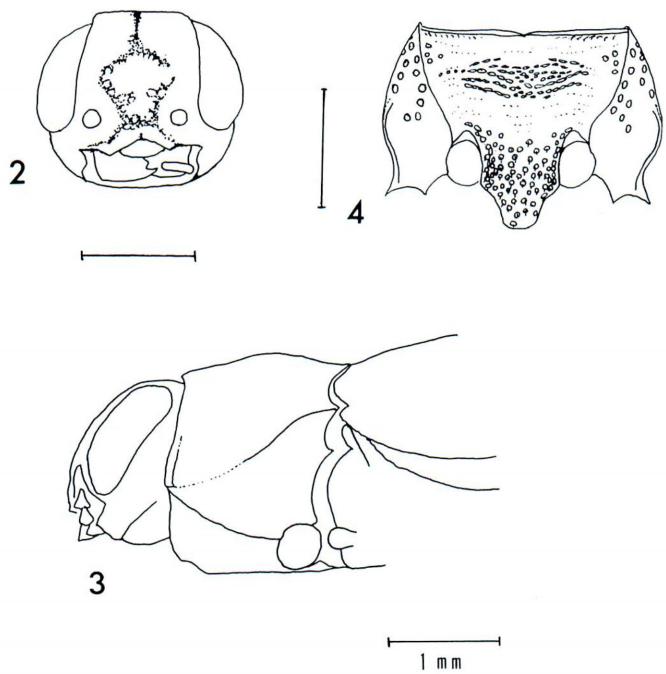
Fig. 1. *Ovalisia kheili* OBENBERGER, holotype; dorsal view.

coerulescentibus, brevibus, articulis III. et IV. aequalibus, articulo III. illo II. 1 2/3 longiore").

Pronotum transverse, widest just behind the middle, about 1.7 times as wide as long, and reticulate; lateral margins sinuate, emarginate from base to the widest part, and then arcuately convergent to anterior angles, which are obtusely angulate and slightly produced anteriad in lateral view; marginal carina well-defined only in basal part; anterior margin 0.83 times as wide as the posterior, bisinuate with median lobe broadly and feebly produced, and indistinctly bordered except for the median part; posterior angles acute and produced; posterior margin deeply bisinuate with median lobe arcuately produced, obviously emarginate on each side of median line, each emargination distinctly incised at the bottom; disc convex, shallowly and obliquely impressed on each side before base, the impression being curved posteriorly at the lateral part though not reaching any margins; surface reticulate, irregularly covered with normal-sized punctures except for small blackish spots on median line and on each side of the line before the middle; normal-sized punctures each with a silver-whitish short semirecumbent hair.

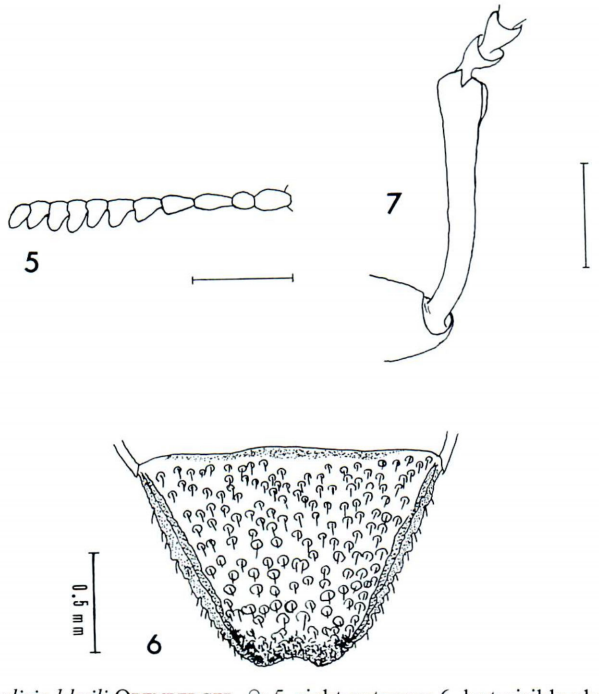
Scutellum transverse, inversely pentagonal, and depressed on median longitudinal line; surface finely, transversely rugoso-punctate.

Elytra elongated ovate, 4.0 times as long as pronotum, wider than pronotum,



Figs. 2–4. *Ovalisia kheili* OBENBERGER, holotype; 2, head in frontal view; 3, pronotum in lateral view; 4, prosternum in ventral view. (Scale: 1 mm.)

widest just behind the middle, and 1.92 times as long as the widest part; humeri obtusely angulate; sides expanded just behind humeri, feebly sinuate to the gradually arcuate widest part, then arcuately convergent to apices, which are inconspicuously rounded or truncated with irregular denticulations; lateral margins serrate from the middle to apices, the serration being much more spaced in front than behind; basal lobes subangulately produced at about 2/3 from median line; disc with 10 intervals on each elytron, though the 10th is invisible in dorsal view, being located under the 9th interval; 1st spot located at basal 1/4 on 4th and 5th intervals and 1/18 as long as the elytral length,[1] 2nd at apical 2/5 on 3rd, 4th and a small portion of 5th intervals and 1/11 as long as elytral length, 3rd at apical 1/4 on 4th and 5th intervals and 1/13 as long as elytra, 4th spot at apical 3/7 on 7th and 8th intervals and 1/15 as long as elytra; surface rugose with normal-sized punctures all over, which are relatively small and shallow, though very few on the spots which are covered with small punctures; each normal-sized puncture with a short silver-whitish semirecumbent hair; small punctures forming rugae between normal-sized punctures; striae deeply, sparsely and elliptically punctate, without hair.



Figs. 5–7. *Ovalisia kheili* OBENBERGER, ♀; 5, right antenna; 6, last visible abdominal sternite; 7, right frontal tibia in dorsal view. (Scale: 0.5 mm.)

1) Elytral length is measured from the tip of scutellum to apices.

Ventral surface shallowly and widely punctate, clothed with silver-whitish semirecumbent hairs. Prosternum convex along anterior margin in anterior 1/4, flattened in middle; anterior margin obtusely incised at the middle though straight on both sides with a groove just behind the margin; punctures in anterior 1/4 transversely rugose and confluent; prepisterna sparsely scattered with shallow punctures in anterior and middle parts, the remaining parts being covered with small punctures; prosternal process feebly narrowed by front coxae and feebly produced just behind them, then with the sides emarginate and parallel towards apex which is feebly arcuate. Mesosternum divided. Metasternum longitudinally grooved at middle.

Middle coxae a little more widely separated from each other than in the anterior ones. Posterior coxae arcuately emarginate at each posterior margin.

Abdomen lost.

Legs moderate in size; mesofemora robust, mesotibiae cylindrical, feebly curved inwards.

Length: 8.4 mm. Width: 3.0 mm.

Holotype: (Sex unknown), China.

Depository. National Museum of Czech Republic.

Notes. A second specimen of *Ovalisia kheili* was available for my study after my re-examination of the holotype was completed. I am going to supplement the above redescription of the holotype on the basis of this additional specimen.

Antennae with 1st segment obconical, 2nd globular, 3rd fusiform and 1.6 times as long as 2nd, 4th obtusely triangular and 1.4 times as long as 2nd, ratio of maximum width / length 0.62, 5th to 10th serrate and 11th elliptical; length and width of each segment as shown in Table 1, in which the length is of the stem part of antennae and the width is of the maximum width; sensory pores concentrated in a distinct round pit on each apico-inner surface of 4th to apical segments.

Table 1. Length and width of each antennal segment of *Ovalisia kheili* (in 0.1 mm).

Segment no.	1	2	3	4	5	6	7	8	9	10	11
Length	1.9	1.1	1.8	1.6	1.4	1.3	1.0	1.0	1.0	1.0	0.88
Width	1.1	0.63	0.63	1.0	1.4	1.5	1.6	1.6	1.3	1.3	1.3

Abdomen shallowly and densely punctate, the punctures becoming stronger towards sides except in the last visible abdominal sternite, each with a short semi-recumbent silver-whitish hair; apex of last visible sternite arcuately emarginate at the middle, with rounded sides (female).

Legs rather short and robust, sparsely clothed with silver-whitish setae; all

femora fusiform; anterior tibiae feebly curved outwards, with the outer sides dilated in apical 3/10, and with latero-apical angles obtuse; meso- and metatibiae feebly curved inwards; all tarsal segments short and nearly equal in length to each other.

Length: 8.3 mm. Width: 2.9 mm.

Specimen examined. 1♀, Mt. Lu Shan (alt. 960–1,210 m), Jiangxi Prov., China, 16～17–VIII–1994.

Ovalisia tapanensis sp. nov.

(Figs. 8–16)

Body elongated ovate, greenish with aeneous tinge; head greenish with aeneous tinge on frons, punctures on vertex aeneous, clypeus and labrum greenish, vertex with a small longitudinal blackish spot along median line; pronotum greenish with aeneous tinge, with reddish-cupreous tinge at the sides; elytra elongate, greenish, though reddish aeneo-cupreous outside 6th interval, though the margin is greenish with aeneous tinge in apical 1/4, each with four blackish-purpureous spots: three ranged along suture and the remaining just outside the 2nd spot.

Head narrower than the base of pronotum; vertex convex, with median groove narrow and running from vertex to the top of frons; frons convex and forming an inverted pentagon, though shallowly depressed along median line between eyes; clypeus transverse, 3.1 times as wide as long, feebly depressed between antennal

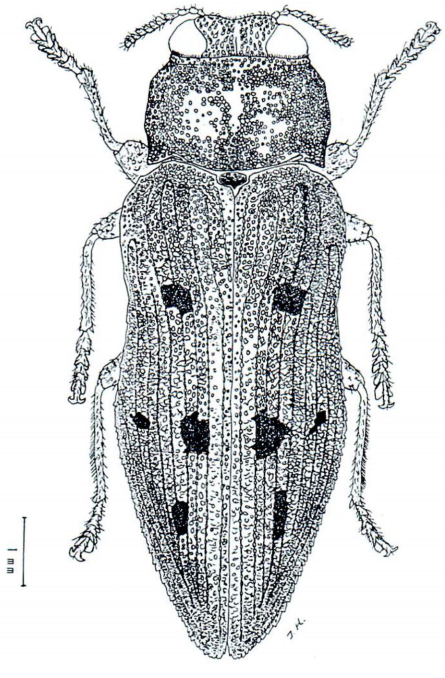


Fig. 8. *Ovalisia tapanensis* sp. nov., ♂ holotype; dorsal view.

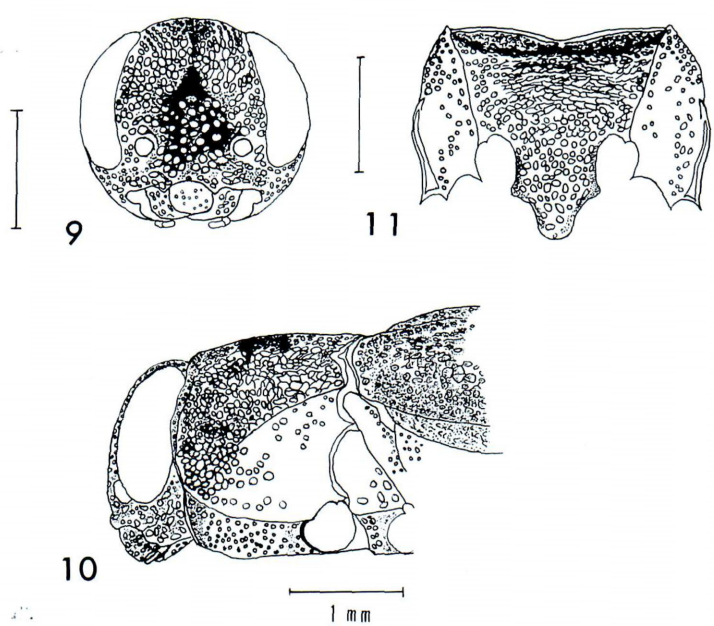
cavities, with anterior margin arcuately emarginate, clypeal suture invisible; antennal cavities small and internally surrounded by arcuate ridges; surface coasely and shallowly punctate, the punctures separated from one another by broad reticulation, each with a short semirecumbent silver-whitish hair; eyes with internal margins feebly sinuate and gently convergent to vertex.

Antennae with 1st segment obconical, 2nd globular, 3rd fusiform and 1.3 times as long as 2nd, 4th triangular and 1.5 times as long as 2nd, ratio of maximum width/length 0.67, 5th to 10th serrate and 11th elliptical; length and width of each segment as shown in Table 2; sensory pores concentrated in a distinct round pit on each apico-inner surface of 4th to apical segments.

Table 2. Length and width of each antennal segment of *Ovalisia tapanensis* sp. nov. (in 0.1 mm).

Segment no.	1	2	3	4	5	6	7	8	9	10	11
Length	1.6	1.5	2.0	2.3	1.6	1.4	1.3	1.1	1.1	1.0	1.0
Width	0.88	1.0	0.63	1.5	1.5	1.9	2.0	2.0	2.0	1.8	1.4

Pronotum transverse, widest just behind basal 1/3, about 1.7 times as wide as long, and covered with punctures; lateral margins obtusely biangulate and subparallel between these angles, and feebly emarginate behind the posterior angles,



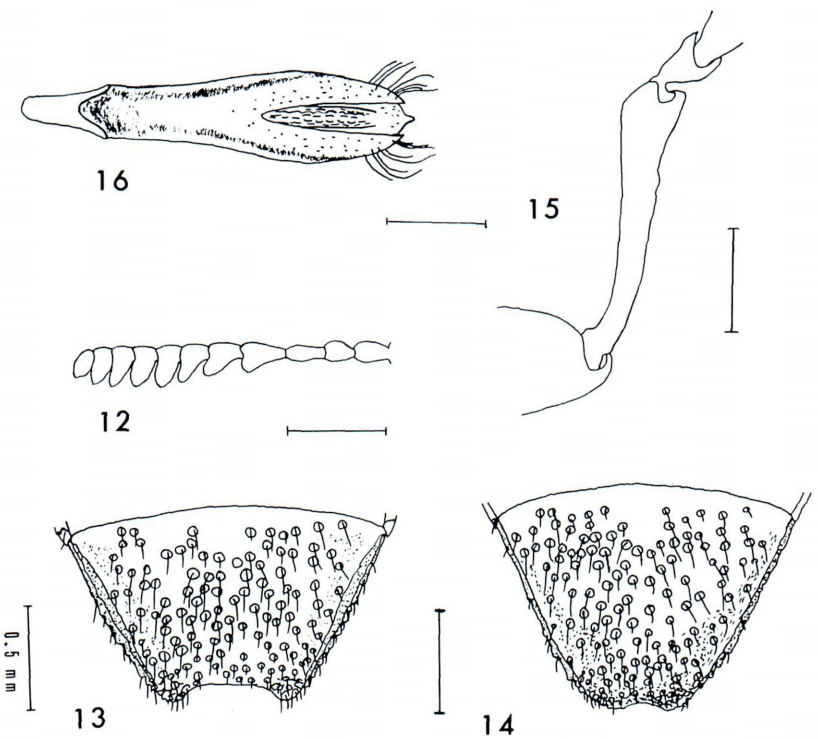
Figs. 9–11. *Ovalisia tapanensis* sp. nov., ♂ holotype; 9, head in frontal view; 10, pronotum in lateral view; 11, prosternum in ventral view. (Scale: 1 mm.)

linearly convergent to apical angles before the anterior angles; apical angles rounded and produced anteriorly in lateral view; marginal carina in lateral view well-defined, arcuate to near basal 2/3; anterior margin 0.79 times as wide as posterior margin, slightly bisinuate though seemingly almost straight; posterior angles acute but hardly produced outwards; posterior margin deeply bisinuate with median lobe arcuately produced, each emargination with an incision at the bottom; disc convex, shallowly and obliquely impressed on each side before base, the impression being hardly curved laterad; median line feebly depressed with small punctures; surface irregularly covered with normal-sized punctures except on spots, which are dull greenish or dull bluish-green and covered with small punctures; normal-sized punctures each with a silver-whitish short semirecumbent hair.

Scutellum transverse, inversely pentagonal, and depressed in posterior part; surface finely, transversely rugoso-punctate.

Elytra elongated ovate, 4.2 times as long as pronotum, widest just before the middle and 2.2 times as long as wide at the widest part which is wider than pronotum; humeri obtusely angulate; sides expanded just behind humeri, feebly sinuate to the gradually arcuate widest part, then arcuately convergent to apices, which are rounded with irregular denticulation; lateral margins serrate from middle, the serration becoming denser towards apices; basal lobes roundly produced at about 2/3 from median line; disc with 10 intervals on each elytron, the 10th one visible in dorsal view; 1st spot at basal 1/4 on 4th and 5th intervals and 1/15 as long as elytral length, 2nd spot at the middle on 3rd, 4th and a half of 5th intervals and 1/10 as long as elytra, 3rd at apical 1/4 on 5th interval and 1/13 as long as elytra, 4th spot at the middle on 7th and 8th intervals and 1/19 as long as elytra; surface rugose with normal-sized punctures all over, which are relatively small and shallow, though very few on the spots which are covered with small punctures; normal-sized punctures with silver-whitish short semirecumbent hairs; small punctures forming rugae between the normal-sized punctures, which are weakly punctate and with shimmer; striae deeply, sparsely and elliptically punctate and devoid of hairs.

Ventral surface shallowly and widely punctate, clothed with silver-whitish semirecumbent hairs. Prosternum convex along anterior margin in anterior 1/10 weakly convex in middle; anterior margin obtusely emarginate at middle and arcuately extended to lateral ends with a groove just behind the margin; punctures in anterior 1/4 transversely rugose and confluent; prepisterna sparsely scattered with shallow punctures in anterior and middle parts, the remaining parts being covered with small punctures; prosternal process feebly narrowed by front coxae and produced just behind them, then with the sides emarginate and parallel towards apex which is feebly arcuate, slightly convex or slightly concave in middle in both sexes. Mesosternum divided. Metasternum longitudinally grooved at middle.



Figs. 12–16. *Ovalisia tapanensis* sp. nov. (12, 13, 15 & 16, ♂ holotype), (14, ♀); 12, right antenna; 13–14, last visible abdominal sternite; 15, right frontal tibia in dorsal view; 16, male genital apparatus in dorsal view. (Scale: 0.5 mm.)

Middle coxae a little more widely separated from each other than anterior coxae. Posterior coxae arcuately emarginate at each posterior margin.

Abdomen shallowly, sparsely punctate; the punctures becoming stronger towards sides except in the last visible sternite, each with a silver-whitish short semirecumbent hair; density of punctures lower in female than in male; apex of last visible sternite trapezoidally emarginate at the middle, with rounded sides (male) or arcuately emarginate at middle, with rounded sides (female).

Legs rather short and robust, sparsely clothed with silver-whitish setae; all femora fusiform; anterior tibiae almost straight with outer sides dilated obliquely towards apices in apical 2/10 and with latero-apical angles acute; meso- and metatibiae straight; all tarsal segments short and nearly equal in length to each other.

Male genital apparatus slender; median lobe linearly narrowed to apex, which is narrowly rounded.

Length: 7.0–9.4 mm (mean 8.1 mm) (♂), 7.5–8.5 mm (mean 8.1 mm) (♀). Width: 2.6–3.4 mm (mean 2.9 mm) (♂), 2.6–3.9 mm (mean 3.2 mm) (♀).

Type series. Holotype: ♂, Tapan (1,800 m alt.), Taichung Hsien, Taiwan, 30–VII–1992, T. HATTORI leg. Allotype: ♀, Tapan (1,800 m alt.), Taichung Hsien, Taiwan, 4–VIII–1991, T. HATTORI leg. Paratypes (same locality and collector as the holotype): 5♂♂, 27～30–VII–1983; 1♀, 27–VII–1983; 2♂♂, 28–VII–1985; 2♀♀, 28–VII–1985; 3♂♂, 25–VII–1986; 6♀♀, 26–VII–1986; 2♀♀, 2–VIII–1987; 3♂♂, 31–VII–1988; 2♀♀, 31–VII–1988; 4♂♂, 29–VII～2–VIII–1991; 4♀♀, 29–VII～2–VIII–1991; 3♂♂, 30–VII～4–VIII–1992; 1♀, 26–VII–1993.

The holotype and allotype are deposited in the National Science Museum (Nat. Hist.), Tokyo.

Host plants. All specimens were taken by sweeping leaves of a *Carpinus* tree, which was reported as a probable host plant of *Dicerca unokichii* HATTORI, 1991 from Taiwan.

Etymology. The specific name is derived from the name of the type locality.

Remarks. This new species is allied to *Ovalisia kheili* (OBENBERGER, 1925), but can be distinguished from it by the diagnoses given in Table 3.

Table 3. Characteristics of the species concerned.

Species	*Ovalisia kheili* (OBENBERGER, 1925)	*Ovalisia tapanensis* sp. nov.
Pronotal and elytral coloration	Greenish, with sides tinged with weak aeneo-cupreous	Greenish, with sides strongly reddish aeneo-cupreous
Anterior margin of clypeus	Triangularly emarginate	Arcuately emarginate
Comparison of length of 3rd antennal segment	4th slightly shorter than 3rd	4th longer than 3rd
Lateral margin of pronotum	Widest just behind the middle; sinuate and emarginate before posterior angle	Widest just behind basal 1/3; subparallel and feebly emarginate before posterior angle
Anterior and apical angles of pronotum	Angulate in lateral view	Rounded in lateral view
Impression on pronotum	Curved posteriorly at the lateral part on each side	Hardly curved laterad on each side
Punctures on abdomen	Dense	Sparse
Outer sides of frontal tibiae	Dilated in apical 3/10 and with latero-apical angles obtuse	Dilated obliquely towards apices in apical 2/10 and with latero-apical angles acute

要　約

服部宇春：アジアのタマムシの研究．1）中国産クロホシタマムシ属の1種の再記載とそれに近縁な台湾からの1新種．—— 中国から記載されている *Ovalisia kheili* (OBENBERGER, 1925) を再記載し，それに近縁な新種として，台湾から *Ovalisia tapanensis* を記載した．この新種は，中国から記載された前者とは，頭盾の前縁が弓形に浅くえぐれること，前胸背板の後角直前のえぐれが小さいために両側縁がほぼ平行であること，そして背面の側縁の色彩が濃い赤銅色であることなどの差異によって区別できる．

Errata for Preceding Descriptions

Two preceding papers of mine contain some errors. On this occasion, I am going to correct them.

1) Studies on the Buprestidae (Coleoptera) of Taiwan. I. A new genus and species of the tribe Coraebini (1990; *Elytra*, *Tokyo*, **18**: 221–225).

Page	Error	Correction
Page 221, line 10	I had an opportunity to collect five specimens of a buprestid beetle at Sungkang (2,500 m alt.)...	I had an opportunity to collect four specimens of a buprestid beetle at Sungkang (2,500 m alt.)...
Page 223, caption for figs. 1–4	2, right antenna, frontal view;	2, left antenna, frontal view;

2) Studies on the Buprestidae (Coleoptera) of Taiwan. II. A new species of the genus *Dicerca* (1991; *Elytra*, *Tokyo*, **19**: 57–61).

Location	Error	Correction
Page 58, line 20	Scutellum small and triangular with a depression on the median line.	Scutellum small and inversely pentagonal with a depression on the median line.

References

HATTORI, T., 1990. Studies on the Buprestidae (Coleoptera) of Taiwan. I. A new genus and species of the tribe Coraebini. *Elytra*, *Tokyo*, **18**: 221–225.

——— 1991. Studies on the Buprestidae (Coleoptera) of Taiwan. II. A new species of the genus *Dicerca*. *Ibid.*, **19**: 57–61.

KUROSAWA, Y., 1976. Introduction to Japanese Buprestidae (19). *Coleopterists' News*, *Tokyo*, (36): 1–7. (In Japanese.)

OBENBERGER, J., 1925. De novis Buprestidarum regionis palaearcticae specibus IV. b. *Acta Soc. ent. čech.*, **21** [1924]: 100–104.

Elytra, Tokyo, **24** (1): 96, May 15, 1996

Obrium takeshitai (Coleoptera, Cerambycidae), the First Record from Ishigaki-jima of the Yaeyama Islands

Tatsuya NIISATO

Bioindicator Co., Ltd., Takada 3–16–4, Toshima-ku, Tokyo, 171 Japan

In the winter of 1995, Mr. Hisao NISHINO made a collecting trip for cerambycid larvae to the Yaeyama Islands, and was successful in emerging several specimens of *Obrium takeshitai* from the host plants. Through the courtesy of Mr. Takao ARAI, I had an opportunity to examine the single male specimen in the NISHINO collection. *Obrium takeshitai* is a peculiar species among the Japanese congeners. It was recently discovered from Iriomote-jima of the Yaeyama Islands, and has hitherto been unknown from any other places. In the following lines, I will record it as a second locality of the species.

Obrium takeshitai NIISATO et OHMOTO

Obrium takeshitai NIISATO et OHMOTO, 1994, Elytra, Tokyo, **22**, pp. 350–352, fig.1; type locality: Nakamagawa Rindô, Iriomote-jima, Yaeyama Isls.

Specimen examined. 1♀, Shiramizu, Ishigaki-jima Is. of the Yaeyama Isls., Southwest Japan, host plant collected in I–1995, emerged out on 30–IV–1995, H. NISHINO leg.

The Ishigaki-jima specimen examined almost agrees with the type series from Iriomote-jima except in the following subtle points: body larger; colour slightly darker, the pale parts of bases of fore and mid tibiae and all femora not so conspicuous; the intermediate space of eyes on dorsum nearly 1/4 the maximum width of head; elytra a little longer, 2.52 times as long as the humeral width. The measurements of body parts are as follows (in mm): BL 9.5, AL 11.5, HW 1.65, PL 2.0, PA 1.25, PB 1.3, PW 1.5, EL 6.0, EW 2.38.

My thanks are due to the above mentioned persons for their kind support of material.

Reference

NIISATO, T., & T. OHMOTO, 1994. A new obriine species (Coleoptera, Cerambycidae, Cerambycinae) discovered from Iriomote-jima of the Ryukyu Islands. *Elytra, Tokyo*, **22**: 349–352.

Elytra, *Tokyo*, **24** (1): 97–101, May 15, 1996

イシガキホソクシコメツキの幼虫について

大　平　仁　夫

〒444–35　岡崎市舞木町狐山6–4

The Larva of *Priopus ishigakiensis* (ÔHIRA, 1967) (Coleoptera, Elateridae) from Ishigaki-jima of the Ryukyu Islands

Hitoo ÔHIRA

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Abstract　*Priopus ishigakiensis* is an elaterid beetle originally described by ÔHIRA (1967) from Ishigaki-jima of the Ryukyu Islands under the generic name of *Neodiploconus* HYSLOP, 1927 in the subfamily Melanotinae. Mature larvae of this species were found in December 1994 in an old decaying stump eaten away by termite. After rearing these larvae, I was fortunate to obtain two adults emerged in September 1995.

Mature larvae about 25 mm in length. Body cylindrical, shining, yellowish brown; head, thorax and 9th abdominal segment dark and castaneous brown. Fronto-clypeal area (fcl) with anterior portion bearing a transverse row of 4 small and 2 long setae (Fig. 2 F, I). Nasale (n) tridentate at the tip (Fig. 2 F). Maxillary palpus (plp) and galea (ga) as illustrated (Fig. 2 D). Genal area of epicranial plate with a row of 4 long (led) and 3 small setae (dsse), in addition to some small nodules (Fig. G↖). First to 9th abdominal segments subequal, each mediotergite with a transverse branch of impression (trim) which is not sinuate, striate muscular impression (sim) and sublateral longitudinal impression (sloim) conspicuous, posterior portion with a transverse row of 3 unpaired setae (Fig. 2 B–C). Ninth abdominal segment cylindrical in basal three-fourths, thence rounded and tapered towards obtusely pointed apex; surface evenly punctate and regularly with some long unpaired setae (Fig. 2 H).

本種は，ÔHIRA (1967)が石垣島から新種として記載したもので，原記載では*Neodiploconus*属に所属する種として扱われているが，その後のHAYEK (1990)の研究によって，この属は*Priopus*属の同物異名とされたので，ここではその処置に従った．原記載以降，ÔHIRA (1973)による石垣島のバンナ岳からの1雄個体の記録があるのみで，今のところ石垣島固有の比較的珍しい種だとされている．

1994年12月に，石垣市川平の深石隆司氏が，同地の土壌化した朽木株のシロアリの巣の一部に生息する円筒型のコメツキムシの幼虫を見い出し，それを筆者のもとに届けられた．これを飼育していたが，1995年9月になって成虫が出現した．本属の種は，東南アジア地域に多く知られているが，幼虫が判明したのはこれが最初だと思われる．

本文を草するにあたり，幼虫の採集を支援していただいた石垣市川平の深石隆司氏，本文を指導していただいた国立科学博物館の上野俊一博士に心から御礼を申しあげる．

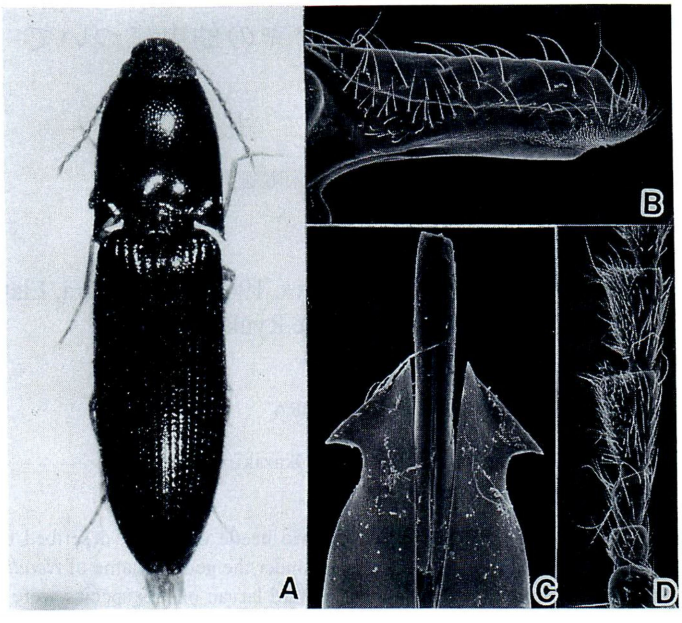

Fig. 1. *Priopus ishigakiensis* (ÔHIRA, 1967), male (except A which is of a female), Ishigaki Is. —— A, Adult, body length 10 mm; B, prosternal process, lateral aspect; C, apical portion of aedeagus, dorsal aspect (apical portion of median lobe broken); D, 2nd to 5th antennal segments.

成虫の形態

雄．体長は9.5 mm内外．体は細長くて両側は平行状，黒色～黒褐色で光沢を有し，体下面，触角と肢などは暗赤褐色を呈する．体毛は黒褐色である．

頭部の前頭横隆線はよく発達し，前縁は湾曲する．頭盾(fronto-clypeal area)は幅広く，長さよりわずかに狭い．触角は短く，末端は前胸背板の後角に達しない．第2, 3節は短小で第4節から鋸歯状，第4節は第2, 3節を合わせたものよりやや長い(Fig. 1 D).

前胸背板は台形で，後角部でもっとも幅広い．背面は深い点刻を一様に分布，点刻と点刻間の幅は点刻の直径より明らかに広い．後角背面には各2本の隆起線を有する．前胸腹板突起は直線状に後方へ伸長し，末端近くで弱く段刻され，末端は鈍く尖る(Fig. 1 B).

上翅の条線は深く印刻され，間室部は弱くしわ状である．腰板は内方に顕著に幅広くなり，後縁の中央部が角ばる．交尾器の背面からの外形は図示したようで，中央突起は幅が狭くていちじるしく細長い（図は末端部が破損してる）．側突起の末端部は三角形で，末端および外角は鋭く尖る(Fig. 1 C). 肢の付節は簡単で，爪は櫛歯状である．

幼虫の形態

老熟に近いと思われる個体の体長は25 mm内外．体幅は約1.5 mm．体は細長く，円筒形で光

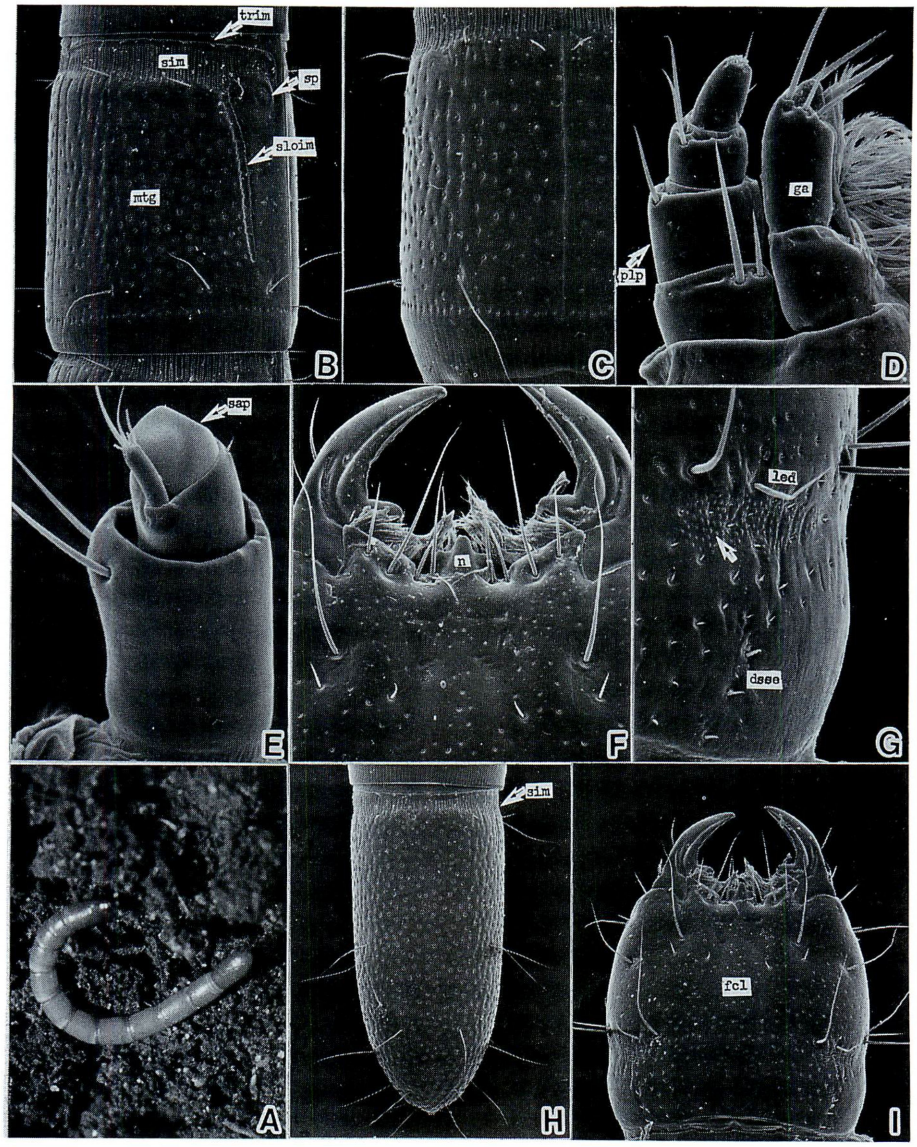

Fig. 2. Some structure of the mature larva of *Priopus ishigakiensis* (ÔHIRA, 1967), Ishigaki Is. —— A, Mature larva, body length 25 mm; B, 4th abdominal segment, lateral aspect; C, 5th mediotergite of abdomen, dorsal aspect; D, right maxillary palpus and galea, ventral aspect; E, left antenna, dorsal aspect; F, fronto-clypeal area of head, dorsal aspect; G, right genal area of epicranial plate; H, 9th abdominal segment, dorsal aspect; I, head, dorsal aspect.

沢を有し黄褐色．頭部，胸部および第9腹節の背面はやや褐色，腹板は背板より淡色である．表面は平滑状であるが，全面に小型の点刻を一様に分布する．頭部と第9腹節の幅はほぼ等しい(Fig. 2 A).

頭部の背面はやや扁平状で，両側は弱く外方に湾曲する．前頭部(Fcl)の後方は後頭孔縁の近くまで達し，末端部は弱く湾曲する．また，前方部には4本の短毛と2本の長毛を生ずる(Fig. 2 F, I)．触角の第1節は円筒形で，幅と長さはほぼ等しく，末端部の外側には2本の長毛を生ずる．第2節は短小で，第1節の0.6倍の幅，末端には1個の大型の半球状をした感覚突起(sap)を有する．第3節はいちじるしく短小で円筒形，末端には少数の長毛を生ずる．小顎節(plp)と内葉(ga)の外形は図示したようで，小顎節の各節には少数の毛を生じ，末節には少数の長毛を生ずる(Fig. 2 D)．大顎は1歯型である．頭蓋の側部(genal area)には，各4本の頭蓋背溝毛(led)を生じ，その後方には小隆起物を散在する(Fig. 2 G)．鼻状突起(n)の末端部は3歯状である(Fig. 2 F).

前胸腹板は舌状の1枚の板からなり，表面は平滑である．中胸の気門は腹部の気門の約2倍の大きさである．

腹部の第1～8腹節の各節はほぼ類似した形態を有し，前縁部には幅広い条凹溝(sim)を生じる．横隆線(trim)はほぼ直線状で，正中線まで達する．亜側縦溝(sloim)は凹溝状を呈し，後方に伸長する．気門(sp)は各節の前方部に位置する．各節の背板(mtg)はやや粗雑な点刻を一様に分布し，各背板には前方部に3本の単一短毛と，後方部に3本の単一長毛を生ずる(Fig. 2 B, C)．第9腹節は円筒形を呈し，長さは幅の約2倍である(Fig. 2 H)．両側の末端部は湾曲して細まり，末端は鈍く尖る．表面は正中線を欠き，全面に円形の点刻をほぼ一様に分布する．また，背面から見た長毛の生ずる位置は図示したようである(Fig. 2 H).

調査標本

石垣島川平中筋で，1994年12月に深石隆司氏が幼虫を採集，これを筆者が飼育した結果，1955年9月に2頭が成虫になった．また，同じ場所から10頭あまりの大小の幼虫を採集することができ，その一部は継続して飼育中である．

あとがき

石垣市川平中筋で深石氏が掘り出した腐朽木株のシロアリの巣の一部は，直径30 cmほどの塊で，中にコガネムシの幼虫も入っていた．このように，同じ場所に多くの幼虫が生息していることから，シロアリの巣の老廃物を食していてもシロアリ自体は捕食していないと思われる．このことは，ほかでも古い朽ち木の根株から，同種と思われる幼虫が得られていることや，飼育していても共喰いなどは起こらないことからも判断される．また，同じ場所に大小の幼虫が混在していることから，幼虫が成虫になるまでには，少なくとも2年以上が必要だと思われる．

成虫の分類では，従来ホソクシコメツキ属（*Priopus* 属＝*Neodiploconus* 属）の種がクシコメツキ亜科（Melanotinae亜科）の1属として取り扱われているが，ここで明らかになった幼虫の形態に基づくと，この亜科のものとして位置させる根拠は薄いように思われる．今後，本属と近属との類縁関係についても，さらに調査を進めたいと考えている．なお，幼虫の各部の形態用語は大平(1962)に従った．

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Elytra, *Tokyo*, **24** (1): 101, May 15, 1996

Records of the *Cossyphus* Species (Coleoptera, Tenebrionidae, Cossyphini) from Thailand

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Tenebrionid beetles of the genus *Cossyphus*, whose body is oval, flat and with semitransparent margins widely extended horizontally, are distributed in the dried areas from North and Central Africa to Southeast Asia. About 25 species have hitherto been known.

Dr. Sadahiro OHMOMO, National Grassland Research Institute, collected a short series of specimens of *Cossyphus* at Ban Na, Kakorn Sayok, Central Thailand late in 1994, and submitted them to me for examination. On the occasion of a research trip to Europe in 1995, I compared them with the type and other materials preserved in the Natural History Museum, London, and the Muséum National d'Histoire Naturelle, Paris, and obtained the following result:

1) *Cossyphus limbatus* PASCOE, 1887

3 exs., 13–XI–1994, S. OHMOMO leg.

2) *Cossyphus explanatus* REITTER, 1904

1 ex., 13–XI–1994, S. OHMOMO leg.; 1 ex., Doi Suthep, N. Thailand, 29–IV–1985, M. TAO leg.

Elytra, Tokyo, **24** (1): 102, May 15, 1996

A New Record of *Themus chaoi* (Coleoptera, Cantharidae) from Northern Vietnam

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In recent years, many cantharid beetles were brought for me by some Japanese entomologists from northern Vietnam. In their materials, I found a pair of specimens of *Themus chaoi* which was hitherto known only from the type localities, Kingtung and Jing Hong in Yunnan, Southwest China. The northern Vietnamese material will be newly recorded below. I thank Messrs. Kiyoyuki MIZUSAWA and Nobuhiko KATSURA for their kindness in supplying the materials.

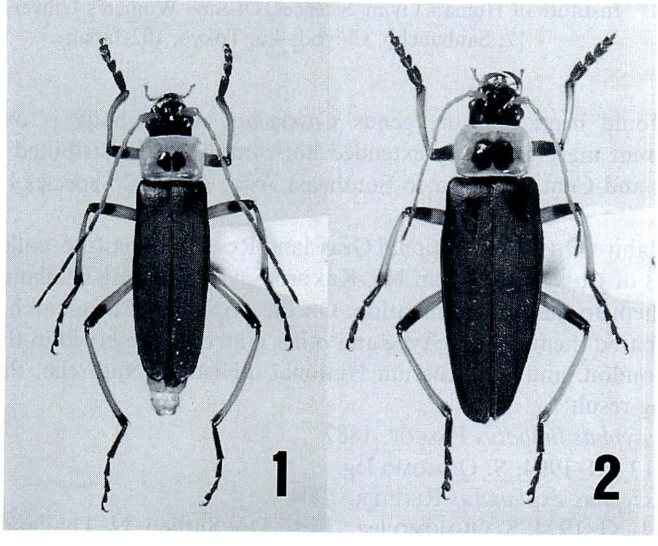
Themus (s. str.) ***chaoi*** WITTMER

Themus (s. str.) *chaoi* WITTMER, 1983, Ent. Arb. Mus. Frey, **31/32**: 219–221, figs. 35, 36, 99.

Specimens examined. 1♂, 1♀, Sa Pa, Lao Cai Prov., N. Vietnam, V–1993.

Depository of the specimens examined. The specimens recorded above are preserved in the collection of the Kurashiki Museum of Natural History.

Distribution. China (Yunnan); N. Vietnam (new record).



Figs. 1–2. *Themus* (s. str.) *chaoi* WITTMER, from Sa Pa, northern Vietnam; 1, male; 2, female.

Elytra, Tokyo, **24** (1): 103–111, May 15, 1996

The Coleopteran Family Decliniidae (Elateriformia, Scirtoidea) New to Japan, with Description of its Second Representative

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Abstract A second representative of the family Decliniidae is described from Japan under the name of *Declinia versicolor* sp. nov. Male features of this family are described and illustrated for the first time.

The family Decliniidae belonging to the superfamily Scirtoidea of the series Elateriformia was recently established by NIKITSKY, LAWRENCE, KIREJTSHUK and GRATSHEV (1994), and its phylogenetic position was also discussed in detail by LAWRENCE, NIKITSKY and KIREJTSHUK (1995). It contains only one species, *Declinia relicta* NIKITSKY, LAWRENCE, KIREJTSHUK et GRATSHEV, 1994, which occurs in the Russian Far East. By careful screening of our large collection of undetermined beetles and through the courtesy of our friends, we confirmed the occurrence of a representative of this interesting family in Japan.

Studying external characteristics of the Japanese material, we found some reliable difference for separating Japanese specimens from Russian ones in the proportion of body, antennal configuration and sculpture of metasternum.

It was reported that all the specimens of the type series (11 specimens) of *Declinia relicta* NIKITSKY *et al.* are females, and all the specimens of our original collection of the Japanese *Declinia* are also females. In spite of these facts, we considered that the lack of male *Declinia* was not due to parthenogenesis but could be attributed to insufficiency of collecting, by overlooking behavioral difference between sexes. Our expectation was fulfilled by Mr. Katsumi AKITA, and we were able to examine a male specimen after the completion of the first draft of this paper prepared on female specimens.

Biological information of *Declinia* species is very scarce. According to Mr. H. YOSHITOMI (pers. comm.) who is a collector of some Japanese materials, all

the Hiwada specimens of the beetle were found on the leaves of dwarf bamboo together with a scirtid, *Cyphon sannoides* YOSHITOMI, 1996. The locality is a large open space surrounded by a cold-temperate forest at an altitude of about 1,500 m. The clearing was formed about two years before by an extensive cutting down, and is now covered with growths of a dwarf bamboo, *Sasa senanensis* (FR. et SAV.) REHDER.

In the present paper, the Japanese representative of the family Decliniidae will be described from Honshu and Shikoku as a new addition to science.

The abbreviations employed are as follows: LB – length of body excluding head; WB – width of body.

Declinia versicolor sp. nov.

[Japanese name: Nise-maru-hananomi]
(Figs. 1–11)

Male and female. Length: 3.6–4.3 mm.

Body elongate-elliptical, 2.1 times as long as wide and 1.96 times as long as wide excluding head (in male), 2.0 times as long as wide on an average and 1.92 times as long as wide excluding head (in female), widest behind the middle of elytra, well convex above, especially on elytra; surface shining on dorsum, weakly lustrous on venter. Coloration of body often variegated, usually dark reddish brown, antennae, labrum, both palpi, and legs yellowish brown, elytral suture and humeral portions often diluted with red. One paratype from Hiwada, Gifu Prefecture, has black elytra and nearly black trunk, and the other from the same locality is dark brown on the dorsal surface, while the specimen from Odamiyama, Ehime Prefecture, is concolorously light reddish brown. Pubescence fine, very short, dense and appressed, though apparently sparser on elytra.

Head deflexed, strongly transverse, 1.6 times as long as wide including eyes, gently convex above, abruptly constricted behind eyes, and forming a short neck and distinct tempora which is about 0.23 times as long as longitudinal diameter of an eye; clypeus strongly transverse, about 2.6 times as wide as long; fronto-clypeal suture arcuate, barely discernible (but clearly visible as pigmented line in a light colored specimen), and united at sides with supra-antennal ridges which protrude weakly and conceal a part of antennal insertions as seen from vertex. Punctures on head fine, shallow and sub-umbilicate, sparsest on occiput where the distance between punctures is equal to 0.5 to 1.2 times their diameter, then becoming denser anteriad and almost contiguous or with the separation less than a half their diameter on frons and clypeus. Eyes longitudinally ovate, moderately developed, not protruding, and separated by twice their vertical diameter. Mandibles short, unidentate (Fig. 3), a little broader than long at base, with a deep excavation for the reception of lateral edge of labrum; mola moderately developed, well pigmented, with a distinct tubercle on apical surface; prostheca roundedly produced,

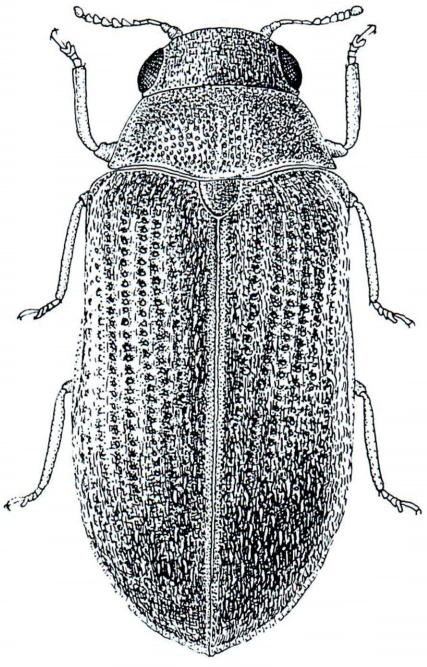


Fig. 1. *Declinia versicolor* sp. nov., male.

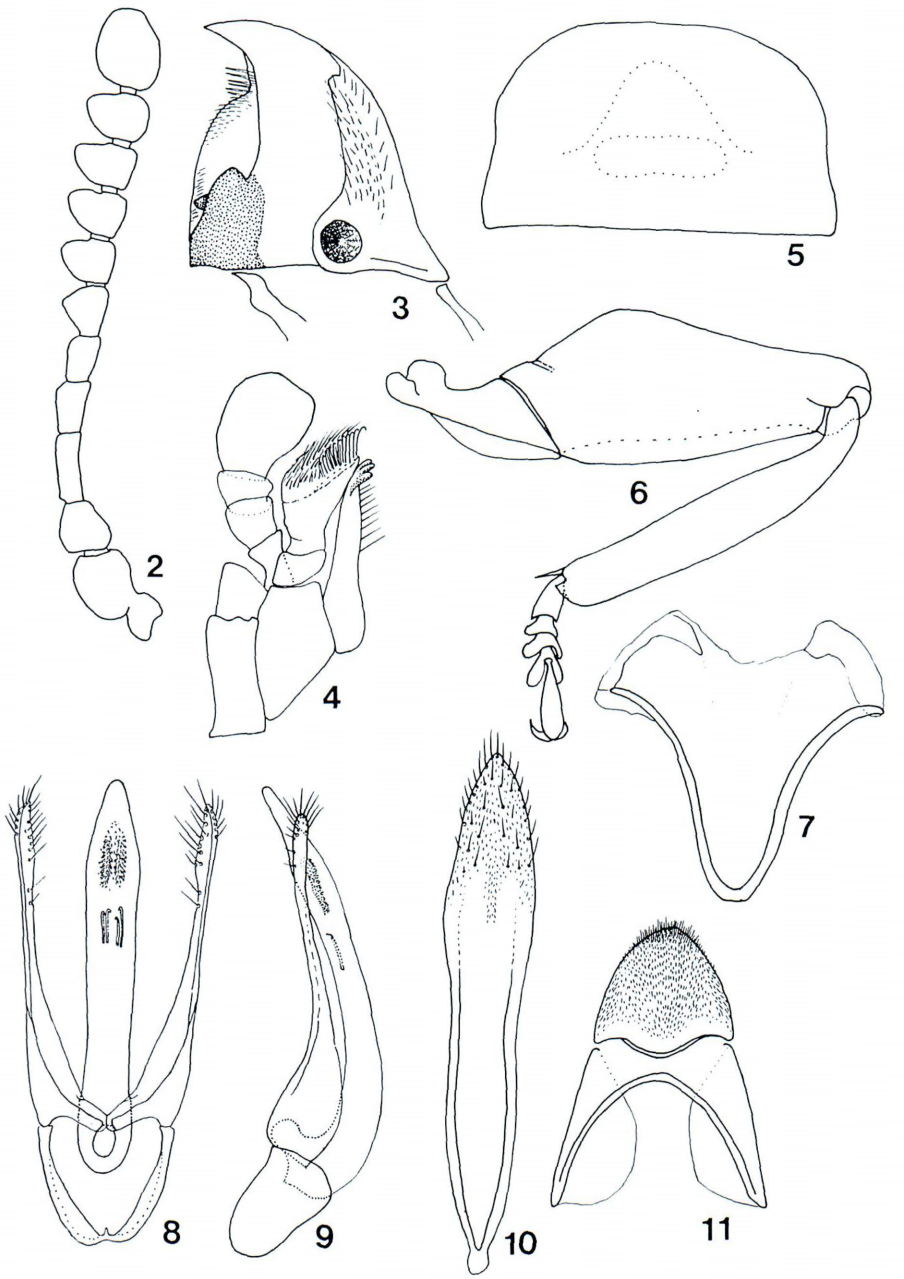
translucent, furnished with a bunch of fine to long setae (penicillus) on inner margin. Antennal grooves very deep, narrowing downwards, and continuing to concavity of pronotal hypomeron. Antennae (Fig. 2) short, 11-segmented, extending posteriorly just beyond base of pronotum; distal 6 segments more or less dilated and forming obscure loose club; scape about 1.3 times as long as wide, feebly dilated apically, pedicel tapered apicad, about 0.8 times as wide as scape, and 1.1 times as long as wide, 3rd to 5th narrow and elongate, 3rd strongly elongate, cylindrical, about 3 times as long as wide, and less than a half as wide as 2nd, 4th about 0.75 times as long as 3rd, feebly dilated apicad, slightly longer than 5th though similar in shape, 6th to 10th approximately equal in length, but progressively more produced inward, 11th oval, about 1.2 times as long as wide, about 1.7 times as long as 10th, with apex broadly rounded. Maxillae (Fig. 4) rather stout; galea with external process near base obscure, basigalea rather large, well pigmented; lacinia with 3 large hooks at apex. Last segment of maxillary palpus elongate-oval, a little shorter than 3 preceding segments combined, subtruncate at apex. Last segment of labial palpus similar in shape to that of maxillary one, but smaller. Mentum (Fig. 5) very well developed, concealing mouthparts from below, about 1.8 times as wide as long, with apical margin gently rounded, and sides faintly constricted at middle; submentum strongly transverse.

Pronotum convex, extremely transverse, about 2.5 times as wide as long, about 1.4 times wider than head, widest just before posterior corners, then distinctly

and rectilinearly narrowed anteriad, with the distance between anterior corners about 0.78 times as wide as that between posterior corners; sides somewhat explanate, and sharply ridged throughout; anterior corners angulate, and slightly acute; posterior corners approximately rectangular, with narrowly rounded apices. Pronotal punctures shallow, distinctly umbilicate, somewhat finer anteriorly, usually larger and sparser than those on head, with the density variable with specimens, sparsest on midline where the distance between punctures is equal to 0.5 to 2.5 times their diameter, and a narrow impunctate line is often detectable; separation at sides usually much less than their diameter. Scutellum rather large, somewhat cordate, 1.3–1.6 times as wide as long, with anterior margin straight, and apex bluntly pointed; surface variably sculptured, finely and clearly punctate, confusedly punctate, or rugose.

Elytra oblong-oval, well convex above, highest and widest at basal 3/5, 1.69 times as long as wide in male, 1.66 times (on an average) as long as wide in female, 5.2 times as long as pronotum in male, and 5.65 times (on an average) as long as pronotum in female; sides marginate from anterior corner to apices, somewhat sinuate, slightly constricted behind humeri, then gradually diverging to posterior 2/5, and then more abruptly attenuated toward faintly pointed apices; anterior corner angulate, distinctly explanate, visible from above; each elytron with 12 punctate striae, sutural two striae short and indistinct because of confused and subobsolete arrangement of punctures, the remainings distinct, with punctures rather regularly disposed, though becoming much finer apically; interstices between striae weakly elevated, furnished with minute setigerous punctures which are subseriately arranged. Epipleura entire, extremely widened and deeply concaved at base for the reception of femoral apices, and abruptly narrowing posteriad to the level of 1st ventrite, then gradually and slightly re-widening to apex, width of re-widening portion / width of narrowest portion $=8/5$.

Prosternum short in front of procoxae, less than a half as long as longitudinal diameter of coxa, nearly 3 times as broad as prosternal process, anterior portion folded vertically into head rest which is subtrapezoidal in shape; prosternal process broad, subparallel-sided, and broadly rounded at apex, which is received by a deep concavity on mesosternum. Propleural flange, pleurotrochantin (LAWRENCE, NIKITSKY & KIREJTSHUK, 1995) located in the same manner as in *D. relicta*. Procoxal cavities widely open internally and externally. Mesosternum short, rugosely punctate, about 0.44 times as long as wide, with area in front of coxae about 0.38 times as long as longitudinal diameter of mesocoxal cavity; surface uneven, deeply incised at apex; medio-longitudinal suture disappeared in the bottom of anterior concavity, which is inverted fan-shaped, and surmounted by carina interrupted antero-medially. Metasternum weakly convex, flattened at center, about 0.62 times as long as wide, grooved along anterior transverse carina for reception of apex of middle tibia and tarsus, with medio-longitudinal suture clearly impressed in apical 3/4; transverse suture short and fine, sometimes



Figs. 2–11. *Declinia versicolor* sp. nov. — 2, Female antenna; 3, mandible; 4, maxilla; 5, mentum; 6, fore leg, internal aspect; 7, 8th abdominal sternite of male; 8, aedeagus, dorsal view; 9, ditto, lateral view; 10, 9th abdominal sternite of male; 11, 9th and 10th abdominal tergites of male.

indefinite, less than 1/3 as long as width of metasternum; surface shallowly and distinctly punctate, punctures large and confused antero-laterally, becoming finer medially and posteriorly, usually finest at center; anterior intermesocoxal process short and broad, and more or less blunt apically, but with a short median carina which fits into mesosternal apical notch, forming meso-metasternal interlocking device. Metepisternum broad, densely and rather confusedly punctate, concaved for reception of middle femur at base, with exposed portion about 2.6 times as long as wide, widest at base, faintly tapered posteriad.

Legs rather short, clothed with dense and minute pubescence; procoxae strongly transverse, grooved for reception of femoral base; mesocoxae obliquely grooved for reception of trochanter and upper base of femur; metacoxae faintly separated by narrow intercoxal process of 1st ventrite; metacoxal plates broad mesally, then abruptly tapered at mesal 1/3, densely and rather confusedly punctate; trochanters rather large, concave for reception of tibial tip and tarsus, and internal edge of concavity carinate; femora stout, finely and densely punctate, impressed for reception of tibiae, external edge forming a sharp carina but internal edge obscure; front and middle femora angularly broadened toward middle; front femora each with a faint sulcus near internal base; tibiae slender, each with dentoid short process at apex; apical spur single, short and sharp; tarsi short, about 1/3 as long as tibiae, tarsal segment more or less produced beneath, with segments 1st through 4th forming progressively more distinct lobes; claws simple.

Abdomen 1.15 times as long as wide at base, finely and densely punctate, punctures somewhat umbilicate on 2nd ventrite, becoming finer and more convex on 3rd and 4th, then entirely intergrading to granules on 5th; 1st ventrite transversely impressed for reception of hind legs, with intercoxal process coarsely rugose, narrowly produced anteriorly and forming a vertical lamina; 2nd through 4th slightly decreasing in length, 5th about 1.6 times as long as 4th, not modified but simply blunt at apex in both sexes; lst through 3rd connate, 4th and 5th freely movable; all suture entire; tergites including pygidium normally sclerotized.

Male genital segments:— Eighth sternite (Fig. 7) faintly pigmented laterally, membranous apically and medially, emarginate at apical margin, and V-shaped posteriorly; 9th sternite (Fig. 10) elongate, ring-like basally, and forming sclerotized setose plate in apical half; 9th and 10th tergites (Fig. 11) fused, 9th bisinuate and deeply emarginate at apex, 10th broadly rounded at apex, finely and densely setose. Aedeagus (Figs. 8–9) of typical and simple tri-lobed type, gently curved; basal lobe short, about 0.2 times as long as median lobe; lateral lobes elongate, symmetrical, furnished with several setae in apical 1/3; median lobe gently curved ventrad, somewhat thickened at base, parallel-sided in median 1/2, then abruptly tapered toward blunt apex in dorsal view, provided with four elongate hook-like armatures and clumps of short spines and scales in endophallus.

External sexual dimorphism quite uncertain even in the configuration of antennae, palpi, and 5th ventrite, but the body shape of female is seemingly

roundish (LB/WB = 1.92 on an average).

Distribution. Japan (Honshu, Shikoku).

Type series. Holotype: ♂, Kitazawa-tôge Pass, 1,900–2,100 m alt., Hase Village, Nagano Pref., 21–VII–1992, K. AKITA leg. Paratypes: 3♀♀, Hiwada, Takane-mura, Gifu Pref., 28–VI–1994, H. YOSHITOMI leg.; 1♀, do., 16–VII–1995, H. YOSHITOMI leg.; 1♀, Sengendaru-kôgen, 1,500–1,700 m alt., Takane Village, Gifu Pref., 23–VII–1993, K. AKITA leg.; 1♀, Odamiyama, Ehime Pref., 19–V–1985, E. YAMAMOTO leg.

Type depository. Most specimens of the type series including the holotype are preserved in the Entomological Laboratory, College of Agriculture, Ehime University, Matsuyama.

Remarks. External difference between the new species and *Declinia relicta*

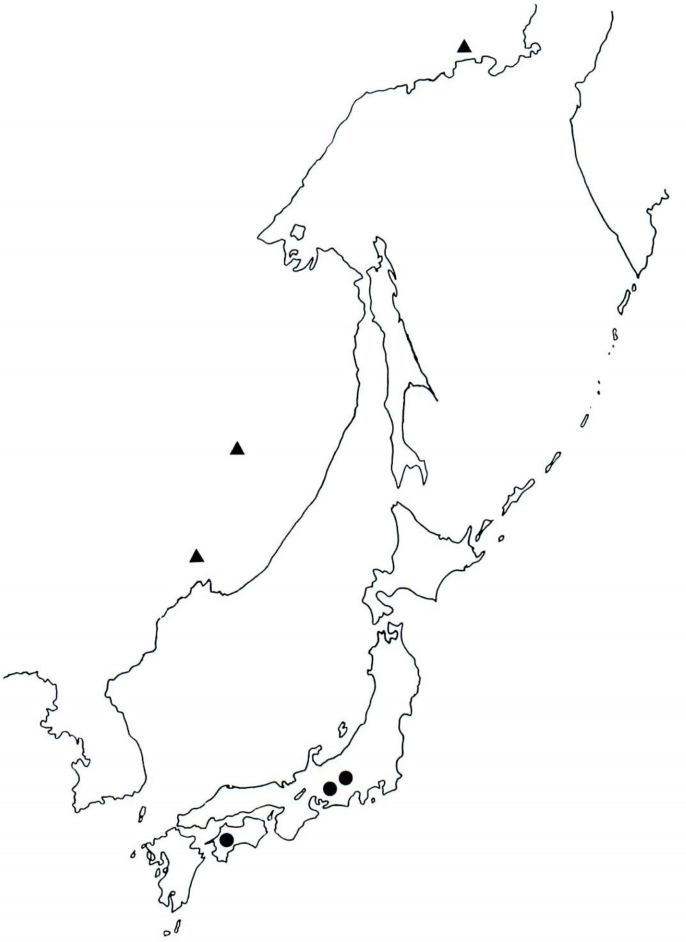


Fig. 12. Distribution of *Declinia versicolor* (circles) and *Declinia relicta* (triangles).

NIKITSKY *et al.* is not sufficiently large to be convinced without direct comparison, but the following features of the new species may be diagnostic: body more roundish, especially in the proportion of elytra, metasternal transverse suture not always distinct, external process near base of galea very obscure, proportion of antennal segments more or less different, punctate striae of elytra more regularly disposed, and elytral epipleuron not notably re-widening behind the level of 1st ventrite.

It is readily surmised that this species is a relict of the latest Glacial Age because of its restricted distribution at higher elevations of Honshu and Shikoku. Its occurrence not only in Honshu but also in Shikoku suggests that the ancestor of this species must have widespread in Japan during the Glacial Age. If a *Declinia* is found in Hokkaido in the future, invasion route of *Declinia* into Japan will be elucidated, namely, whether by the route through Sakhalin and Hokkaido or by the route through the Korean Peninsula. At all events, it is apparent that *Declinia* should be distributed in the Chinese Continent.

Acknowledgments

We would like to thank Dr. S.-I. UÉNO, National Science Museum (Nat. Hist.), Tokyo, for reading the manuscript of this paper, Prof. N. OHBAYASHI, Entomological Laboratory, College of Agriculture, Ehime University, and Dr. H. SASAJI, Biological Laboratory, Fukui University, for their kind guidance, and Messrs. K. AKITA, E. YAMAMOTO and H. YOSHITOMI for their offer of invaluable specimens.

要　　約

酒井雅博・佐藤正孝：日本から初めて記録されるニセマルハナノミ科（新称）甲虫と第2番目の種の記載．—— Decliniidae ニセマルハナノミ科は最近，NIKITSKY *et al.* (1994) によって，極東ロシアから新属新種で記載された *Declinia relicta* に基づいて設立された科で，LAWRENCE, NIKITSKY & KIREJTSHUK (1995) はさっそく詳細な研究を行い，その系統学的位置を明らかにした．筆者らは未同定標本や友人らから研究を委ねられている標本を慎重に再調査したところ，長野県，岐阜県，愛媛県で採集された7頭の *Declinia* 属甲虫の標本を見いだした．これらの標本は，記載から判断するかぎり *Declinia relicta* にきわめてよく似ていたが，詳しく比較検討した結果，種を分かつに足りうるいくつかの標徴を見いだしたので，新種と判断し，*Declinia versicolor* と命名して記載した．なお，*Declinia relicta* はこれまで♀しか発見されておらず，この科の♂個体の発見，記載は今回はじめてなされるものである．

本種は本州，四国の高標高地に隔離分布し，最終氷期の遺存種であることが明らかである．また形態的類似度から判断して，*Declinia relicta* を直接の祖先としていることも間違いないであろう．

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Elytra, Tokyo, **24** (1): 111–112, May 15, 1996

The True Identity of a Japanese Species of the Genus *Pteroloma* (Coleoptera, Agyrtidae)

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In the present brief note, I am going to record *Pteroloma sibiricum* SZÉKESSY, which has previously been recorded by several authors under the name *P. forsstroemi* (GYLLENHAL). This species was synonymized with the latter by SCHAWALLER (1985), and was revived by the same author (1991) as an independent species. Through the courtesy of Mr. Nobuki YASUDA, I had an opportunity to examine a *Pteroloma* species, which was obtained from the Daisetsu-zan Mountains, and considered it identical with the present species by the shape of male genitalia.

Pteroloma sibiricum SZÉKESSY, 1935

Pteroloma sibiricum SZÉKESSY, 1935, Koleopt. Rdsch., **21**, pp. 175–177, figs. 3–4; type area: Sibirien (Quellgebiet des Irkut). —— HLISNIKOVSKÝ, 1962, Folia ent. hung., (s. n.), **15**, p. 461; 1963, Ent. Bl. Biol. Syst. Käfer, **59**, p. 81. —— EMETZ, 1975, Ins. Mongolia, **3**, p. 100. —— LAFER, 1989, Opred. Nasek. Dal'nego Vostoka SSSR, **3** (1), p. 333, figs. 204, *1–3*. —— SCHAWALLER, 1991, Stuttg. Beitr. Naturk., (A), (468), p. 21.

Pteroloma forsstroemi: SCHAWALLER, 1985, Stuttg. Beitr. Naturk., (A), (377), pp. 3, 5, fig. 3

(partim). —— YASUDA, 1985, Kamikawa-chô no Shizen, Kamikawa, p. 123. (Nec GYLLENHAL, 1810.)

Pteroloma forstroemi [sic!]: KUROSAWA, 1985, Coleopt. Japan Col., Osaka, **2**, p. 252, pl. 45, fig. 4 (partim). —— SATÔ & SAITO, 1989, Check List Jpn. Ins., **1**, p. 256 (partim). (Nec GYLLENHAL, 1810.)

Specimens examined. 5♂♂, 3♀♀, Mt. Kuro-dake (1,500–1,600 m in alt.) of the Daisetsu-zan Mountains, Kamikawa, central Hokkaido, Northeast Japan, 18–VII–1981, N. YASUDA leg.; 4♂♂, 1♀, same locality and collector but altitude unknown, 28–VII–1982.

Distribution. Russia (Oz. Baikal region, Amur region, Primorskij Kray, P-ov Kamchatka); Japan (Hokkaido).

I wish to express my hearty thanks to Drs. S.-I. UÉNO of the National Science Museum (Nat. Hist.), Tokyo, and W. SCHAWALLER of the Staatliches Museum für Naturkunde, Stuttgart, and Mr. N. YASUDA of the Sôunkyô Museum of Natural History, Kamikawa, for their kind help.

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Elytra, Tokyo, **24** (1): 113–124, May 15, 1996

The Genus *Athemellus* (Coleoptera, Cantharidae) of the Ryukyu Islands, Southwest Japan

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Abstract Three new species of the genus *Athemellus* are described and illustrated from Ishigaki-jima and Iriomote-jima of the Ryukyu Islands, under the names *A. yaeyamanus*, *A. hanatanii* and *A. ueharaensis*, respectively. A key is provided to all the *Athemellus* species from the Ryukyus.

Wittmer (1972) established the genus *Athemellus* and transferred *Pseudoabsidia ryukyuana* Wittmer, 1970, to it. In the original description, the latter species was regarded as an "incertae sedis" in the genus *Pseudoabsidia.* This has been the only species of *Athemellus* known from the Ryukyus, and nothing has been added to the genus since then.

Recently, I had an opportunity to examine three remarkable *Athemellus* species from the Yaeyama Islands of the Ryukyus. After a careful examination, it has become clear that they must be new to science. They will be described in the present paper.

All the four species of the genus *Athemellus* hitherto known from the Ryukyus, including the three new species, are summarized in a key. All are recorded from the Yaeyama Group, and there are no record of *Athemellus* from other island groups of the Ryukyus up to the present.

I wish to express my hearty thanks to Dr. Shun-Ichi Uéno of the National Science Museum (Nat. Hist.), Tokyo, for his critical reading of the original manuscript, to Dr. Masataka Satô of Nagoya Women's University and Dr. Katsuyoshi Ishida of Meijô University for their kind advice on the present study, and to all the collectors who supported me with specimens.

Genus ***Athemellus*** Wittmer

Athemellus Wittmer, 1972, Ent. Arb. Mus. Frey, **23**: 123–124. (Type species: *Athemellus maculithorax* Wittmer, 1972, by original designation.)

The forty-one species hitherto known of the genus *Athemellus* are recorded from Russia, Japan, Taiwan, China, Java and Borneo. Many species have been described from Taiwan and the southern part of China. Only the species from the Ryukyu Islands of Southwest Japan are dealt with in this paper.

Athemellus ryukyuanus (WITTMER)

[Japanese name: Yaeyama-futairo-joukai]

Pseudoabsidia ryukyuana WITTMER, 1970, Mem. Fac. Educ. Kagawa Univ., (II), (192): 23, figs. 1–2.
Athemellus ryukyuanus: WITTMER, 1972, Ent. Arb. Mus. Frey, **23**: 124. —— SATÔ, 1985, Coleopt. Japan Col., Osaka, **3**: 114, pl. 18, fig. 27. —— ISHIDA, 1986, Trans. Shikoku ent. Soc., **17**: 205.

Notes. This species was described by WITTMER (1970) on the basis of three specimens from Iriomote-jima Is. After that, SATÔ (1985) cited not only Iriomote-jima Is. but also Ishigaki-jima Is. as the distributional range of this species, and illustrated an individual showing a different colour type from the specimens used in the original description.

I examined thirteen specimens of this cantharid from Iriomote-jima Is. and sixteen specimens from Ishigaki-jima Is. In all the former specimens, the head and pronotum are brown except for yellowish apical half of head, and almost black elytron fringed with yellowish brown. In all the latter specimens, the head and pronotum are orange yellow, and each elytron is wholly black. However, I was unable to recognize any other difference than the colour between the specimens from the two populations. Therefore, I have concluded that the two types of colour patterns merely show a geographical variation within the same species.

Specimens examined. Ishigaki-jima Is., Ryukyus: 1♂, 1♀, Mt. Omoto-dake, 5～9–IV–1974, T. KINOSHITA leg.; 1♀, Mt. Omoto-dake, 1–VI–1974, M. SATÔ leg.; 1♂, Mt. Omoto-dake, 1–III–1976, S. SUZUKI leg.; 1♂, Mt. Omoto-dake, 6–IV–1981, T. OHMOTO leg.; 1♀, Arakawa, 9–IV–1981, T. ITO leg.; 1♂, Yonehara, 16–IV–1981, K. BABA leg.; 3♀♀, Omoto, 7～12–IV–1982; 1♀, Mt. Banna-dake, 30–IV–1985, T. ITOH leg.; 2♂♂, Yonehara, 31–III–1987, M. MINAMI leg.; 1♂, Mt. Omoto-dake, 2–V–1989, Y. OKUSHIMA leg.; 2♂♂, Mt. Omoto-dake, 16–IV–1991, T. HANATANI leg. Iriomote-jima Is., Ryukyus: 1♂, Sonai, 13–IV–1969, M. CHÛJÔ leg. (holotype); 1♂, Uehara, 10～15–IV–1974, T. KINOSHITA leg.; 1♂, Nakama-gawa, 3–IV–1977, N. NISHIKAWA leg.; 1♂, Ohtomi, 8–V–1986, M. MINAMI leg.; 1♀, Maryûdo-no-taki, 26–III–1987, M. MINAMI leg.; 1♀, Kanpira-no-taki, 27–III–1987, M. MINAMI leg.; 1♀, Kanpira-no-taki, 8–V–1987, T. IZAWA leg.; 3♂♂, 1♀, Kanpira-no-taki, 29–III–1990, H. KOJIMA leg.; 1♀, Kanpira-no-taki, 27–III–1991, Y. OKUSHIMA leg.; 1♀, Ohtomi-rindô, 15–III–1993, Y. OKUSHIMA leg.

Depository of the specimens examined. The holotype is preserved in the collection of the Biological Laboratory, Nagoya Women's University. The other

specimens recorded above are preserved in the collections of the Biological Laboratory, Nagoya Women's University and the Kurashiki Museum of Natural History.

Distribution. Ryukyus (Ishigaki-jima Is., Iriomote-jima Is.).

Athemellus yaeyamanus OKUSHIMA, sp. nov.

[Japanese name: Yaeyama-kuro-joukai]

(Figs. 1–5)

Male. Head, pronotum, scutellum and elytra dark brown to black with faint dull lustre; lateral areas before eyes, and mouth parts yellowish brown except for

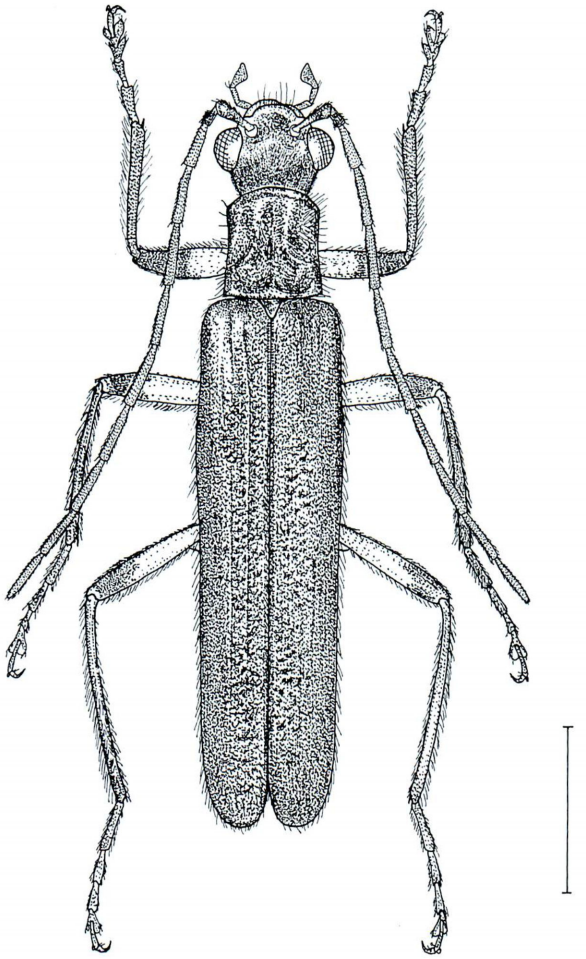


Fig. 1. *Athemellus yaeyamanus* OKUSHIMA, sp. nov., ♂. (Scale: 2.0 mm.)

apical parts of mandibles which are reddish yellow; antennae dark brown except for yellowish brown basal part of 1st segment; coxae, trochanters and femora of all legs pale yellow, but the apical part of each femur is dark brown; tibiae and tarsi yellowish to dark brown, hind legs paler than in fore and middle legs; prosternum yellow; meso- and metasterna, and abdominal sternites yellowish to dark brown. Body closely covered with fine yellowish pubescence; antennae intermingled with some brown bristles in addition to primary pubescence; elytra intermingled sparsely with yellowish bristles and some brown bristles in addition to primary pubescence; apical margin of clypeus and lateral margins of pronotum fringed with yellowish bristles; legs covered with yellowish bristles.

Head slightly shorter than width; disc almost flattened between eyes and depressed along the apical margin of clypeus and lateral areas before eyes; apical margin of clypeus arcuate, and its centre not indented; eyes large, globular and strongly prominent; antennae attaining to apical third of elytra; 1st segment clavate, 2nd short, 3rd to 11th subcylindrical, each segment of 4th to 10th (or to 11th in some individuals) with longitudinal groove on inner side, relative lengths of antennal segments as follows: 22 : 10 : 23.5 : 29 : 30 : 30 : 30.5 : 29.5 : 28 : 24.5 : 28.5.

Pronotum subquadrate, 0.79 times (in the holotype; range 0.79–0.83) as wide as head, 1.12 (1.10–1.13) times as long as wide; anterior margin strongly arcuate, posterior margin weakly arcuate; lateral margins slightly scooped out, but subparallel in basal parts; anterior angles angulately rounded; posterior angles rectangular, with rounded corners; disc swollen, especially so in the posterior area, slightly depressed along the anterior margin, and strongly depressed along the posterior margin, antero-lateral areas hollowed; medio-longitudinal furrow distinct in posterior half and disappearing in anterior half. Scutellum triangular with rounded apex.

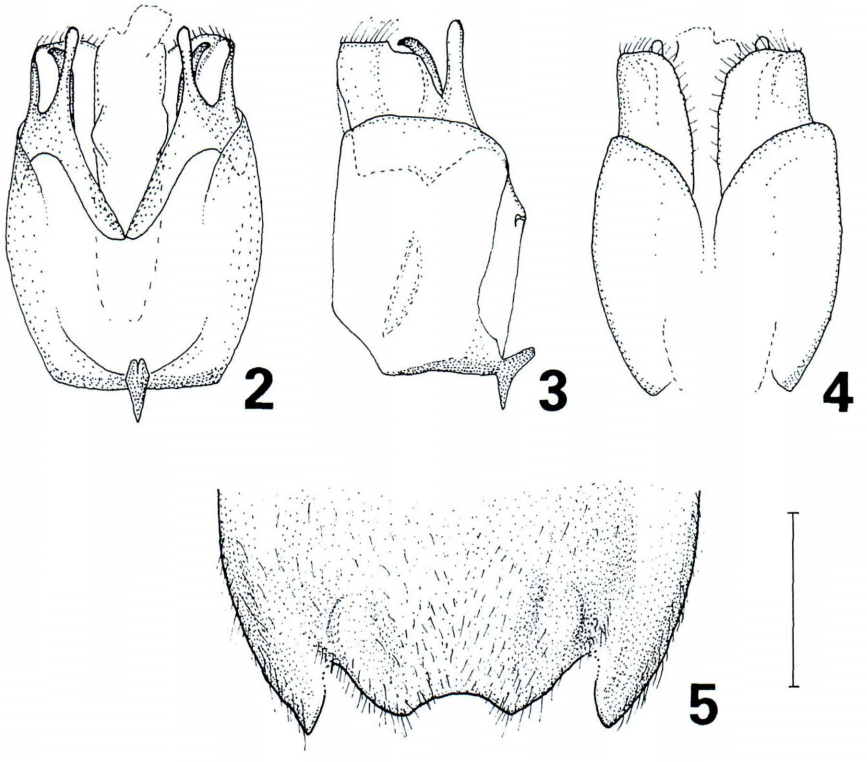
Elytra conjointly 1.42 (1.40–1.46) times as wide as pronotum, 3.61 (3.51–3.63) times as long as wide, the sides subparallel; disc distinctly, closely and rugosely punctate, each elytron provided with two vague costae.

Apex of prosternal process concave. Mesosternum slightly convex along the median line. Relative lengths of hind tarsal segments as follows: 58 : 37 : 30 : 28 : 31.

Male genitalia: ventral process of each lateral lobe straight and slightly expanded terminally; each lateral process of median lobe bent dorsad, with pointed apex; apical margin of dorsal plate of each lateral lobe distinctly emarginate at the lateral side (Figs. 2–4).

Length of body: 8.47 mm (in the holotype; range 7.66–8.47); length of hind tibia: 2.46 (2.10–2.46) mm.

Female. Body somewhat longer and wider than in the male. Eyes not so prominent as in the male. Antennae a little shorter and lacking a groove on each segment. Pronotum 0.83–0.92 times as wide as head, 1.00–1.07 times as long as wide. Elytra conjointly 1.34–1.41 times as wide as pronotum, 3.23–3.53 times as long as wide. Eighth abdominal sternite with a deep notch on each side and a



Figs. 2–5. *Athemellus yaeyamanus* OKUSHIMA, sp. nov. —— 2–4, Male genitalia (2, ventral view; 3, lateral view; 4, dorsal view); 5, 8th abdominal sternite in female. (Scale: 0.5 mm.)

shallow hollow at the centre of terminal margin; disc provided with a pair of foveae in front of the terminal margin of middle lobe (Fig. 5).

Length of body: 8.17–9.39 mm; length of hind tibia: 2.32–2.56 mm.

Type series. Holotype: ♂, Mt. Omoto-dake, Ishigaki-jima Is., Ryukyus, 28–II–1992, T. HANATANI leg. Allotype: ♀, same locality as for the holotype, 20–II–1994, T. SHIMIZU leg. Paratypes: 1♀, same locality as for the holotype, 6–III–1993, Y. OKUSHIMA leg.; 2♀♀, same locality as for the holotype, 14～15–III–1993, T. HANATANI leg.; 1♀, same locality as for the holotype, 8–III–1995, K. MATSUMOTO leg.; 1♀, Nagura, Ishigaki-jima Is., Ryukyus, 21–II–1994, T. SHIMIZU leg.; 2♂♂, Maryûdo-no-taki, Iriomote-jima Is., Ryukyus, 9–III–1993, Y. OKUSHIMA leg.

Distribution. Ryukyus (Ishigaki-jima Is., Iriomote-jima Is.).

Notes. This new species somewhat resembles *A. ryukyuanus* (WITTMER, 1970) from Iriomote-jima Is., but can easily be distinguished from the latter by the dark brown head and pronotum, wide dorsal plate of each lateral lobe of the male genitalia, and deep notch on each side of the terminal margin of the 8th abdominal sternite in female.

Athemellus hanatanii OKUSHIMA, sp. nov.

[Japanese name: Hanatani-joukai]

(Figs. 6–10)

Male. Eyes, cephalic area, pronotal marking, scutellum and both sides of each elytron dark brown to black; antennae, maxillary and labial palpi, femora, tibiae, tarsi, meso- and metasterna, and abdominal sternites almost dark brown; mandibles yellow but the apical parts are reddish brown; frons yellowish brown to brown; vertex to lateral areas before eyes, circumference of pronotum, longitudinal stripe on each elytron, prosternum, coxae, trochanters, basal parts of femora, and claws yellow. Body closely covered with fine yellowish pubescence; antennae and elytra with intermingled sparse yellowish bristles and some brown

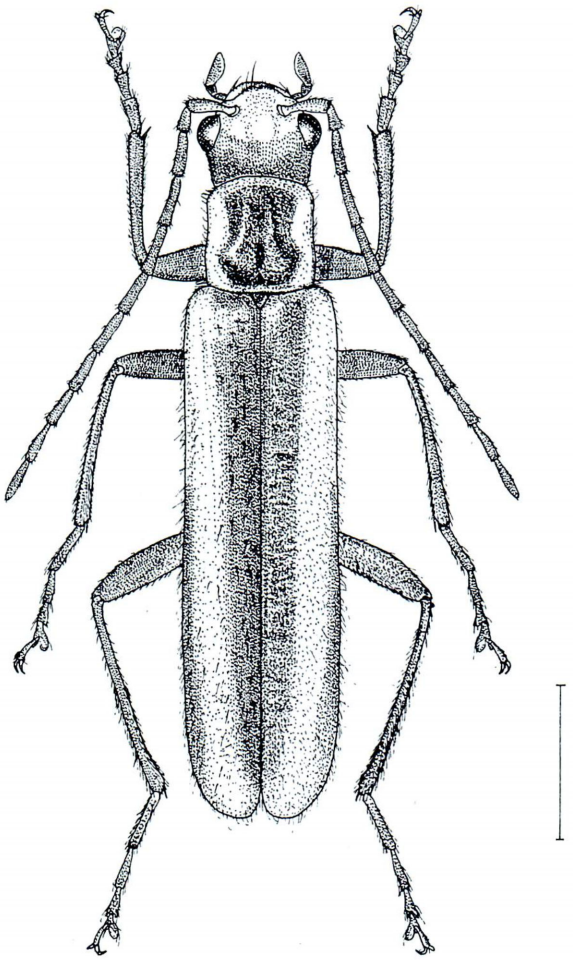


Fig. 6. *Athemellus hanatanii* OKUSHIMA, sp. nov., ♂. (Scale: 1.0 mm.)

ones in addition to primary pubescence; apical margin of clypeus and lateral margins of pronotum fringed with yellowish bristles; legs covered with yellowish bristles intermingled with some brown bristles.

Head slightly shorter than width; central area of disc faintly hollowed, and depressed along the apical margin of clypeus and in lateral areas before eyes; apical margin of clypeus arcuate with its centre faintly indented; eyes not so large, globular and slightly prominent; antennae attaining barely to the middle of elytra, 1st segment clavate, 2nd short, 3rd to 11th subcylindrical, all antennal segments lacking groove, relative lengths of antennal segments as follows: 17 : 10 : 15 : 16 : 17 : 16 : 15 : 14 : 14 : 13 : 16.

Pronotum subquadrate, 0.92 times (in the holotype; range 0.82–0.96) as wide as head, 1.04 (1.00–1.16) times as long as wide; anterior and posterior margins weakly arcuate; lateral margins feebly sinuate; anterior angles rounded; posterior angles obtuse; disc swollen, especially so in the posterior area; antero-lateral areas hollowed; medio-longitudinal furrow distinct in posterior half and disappearing in anterior half; dorsal black marking large, constricted just before the middle and rather broad behind it. Scutellum triangular with rounded apex.

Elytra conjointly 1.33 (1.32–1.49) times as wide as pronotum, 3.37 (3.08–3.65) times as long as wide, the sides subparallel; disc closely and rugosely punctate.

Apex of prosternal process concave. Mesosternum slightly convex along the median line. Relative lengths of hind tarsal segments as follows: 23 : 15 : 10 : 10 : 13.

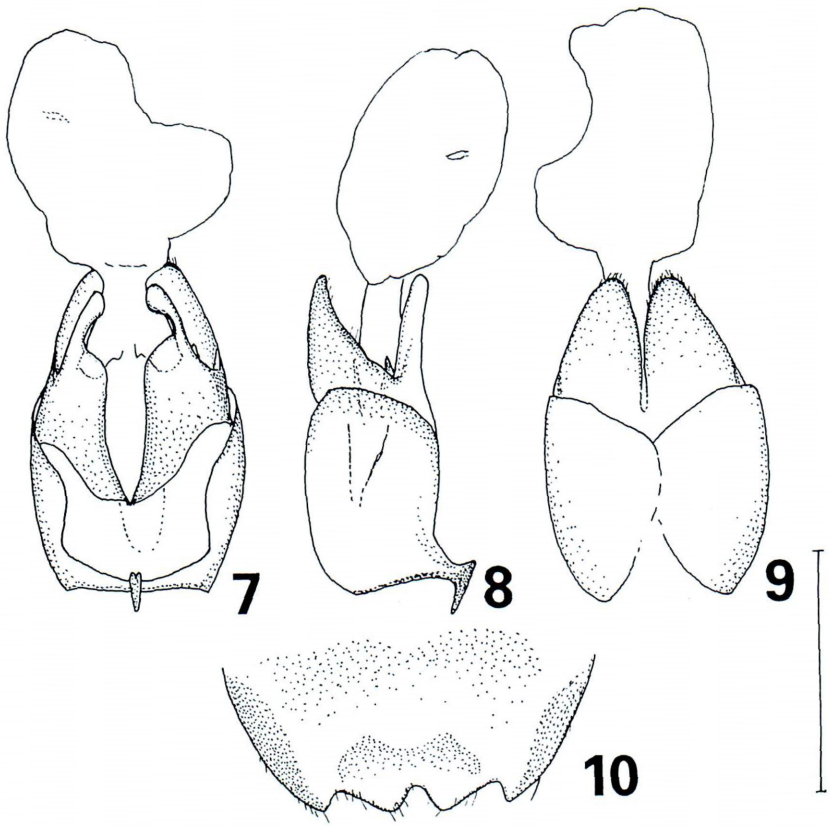
Male genitalia: ventral process of each lateral lobe expanded terminally, the tip bending inside, the basal part broad and extending inwards onto the ventral side; each lateral process of median lobe short with pointed apex; dorsal plate of each lateral lobe narrowed towards the tip, the apex rounded (Figs. 7–9).

Length of body: 4.60 mm (in the holotype; range 4.03–5.23); length of hind tibia: 1.32 (1.17–1.52) mm.

Female. Body somewhat longer and wider than in the male. Eyes not so prominent as in the male. Antennae a little shorter than in the male. Disc of head almost flattened. Colour of legs paler than in the male. Pronotum 0.91–1.04 times as wide as head, 0.96–1.12 times as long as wide. Elytra conjointly 1.30–1.52 times as wide as pronotum, 2.96–3.56 times as long as wide. Eighth abdominal sternite provided with two distinct prominences at the centre of terminal margin (Fig. 10).

Length of body: 4.34–5.75 mm; length of hind tibia: 1.09–1.47 mm.

Type series. Holotype: ♂, Mt. Omoto-dake, Ishigaki-jima Is., Ryukyus, 1–III–1990, Y. OKUSHIMA leg. Allotype: ♀, same data as for the holotype. Paratypes: Ishigaki-jima Is., Ryukyus: 8♂♂, 6♀♀, same data as for the holotype.; 1♀, Mt. Omoto-dake, 6–III–1990, Y. OKUSHIMA leg.; 4♂♂, 2♀♀, Mt. Omoto-dake, 7–III–1990, Y. OKUSHIMA leg.; 1♂, 5♀♀, Mt. Omoto-dake, 15–III–1990, Y. OKUSHIMA leg.; 2♂♂, Takeda-rindô, 11–II–1991, T. KISHIMOTO leg.; 20♂♂, 12♀♀, Mt. Omoto-dake, 25–II–1991, T. HANATANI leg.; 2♂♂, 5♀♀, Mt. Omoto-dake, 20–III–1991, Y. OKUSHIMA leg.; 2♂♂, 1♀, Mt. Omoto-dake, 21–III–1991, Y.



Figs. 7–10. *Athemellus hanatanii* OKUSHIMA, sp. nov. —— 7–9, Male genitalia (7, ventral view; 8, lateral view; 9, dorsal view); 10, 8th abdominal sternite in female. (Scale: 0.5 mm.)

OKUSHIMA leg.; 1♀, Mt. Omoto-dake, 28–II–1992, T. HANATANI leg.; 2♂♂, 1♀, Mt. Omoto-dake, 29–II–1992, M. HIRADATE leg.; 1♀, Mt. Omoto-dake, 3–III–1992, S. NIRASAWA leg.; 1♀, Mt. Omoto-dake, 3–III–1993, Y. OKUSHIMA leg.; 1♂, Mt. Omoto-dake, 13–III–1993, K. MATSUMOTO leg.; 12♂♂, 12♀♀, Mt. Omoto-dake, 13～14–III–1993, T. HANATANI leg.; 1♀, Mt. Omoto-dake, 21–III–1993, Y. OKUSHIMA leg.; 1♂, 1♀, Mt. Omoto-dake, 20–II–1994, T. SHIMIZU leg.; 5♂♂, 5♀♀, Nagura, 21–II–1994, T. SHIMIZU leg.; 1♀, Mt. Omoto-dake, 6–III–1995, K. MATSUMOTO leg.; 1♀, Mt. Omoto-dake, 6–III–1995, H. SATÔ leg.; 1♂, Mt. Omoto-dake, 7–III–1995, K. MATSUMOTO leg.; 2♂♂, 2♀♀, Mt. Omoto-dake, 7–III–1995, H. SATÔ leg. Iriomote-jima Is., Ryukyus: 1♂, Maryûdo-no-taki, 9–III–1993, Y. OKUSHIMA leg.; 1♀, Ohtomi-rindô, 12–III–1993, Y. OKUSHIMA leg.; 2♀♀, source of Urauchi-gawa, 16–II–1994, T. SHIMIZU leg.; 1♂, Takana, 18–II–1994, T. SHIMIZU leg.; 1♂, 1♀, Ohtomi-rindô, 19–II–1994, T. SHIMIZU leg.; 1♂, 4♀♀, Maryûdo-no-taki, 12–III–1995, Y. OKUSHIMA leg.

Distribution. Ryukyus (Ishigaki-jima Is., Iriomote-jima Is.).

Notes. This new species is closely related to *A. pictus* WITTMER, 1983 from Taiwan, but can easily be distinguished from the latter by having a large black marking on the pronotum, black elytra with yellow stripes, and long dorsal plate of each lateral lobe of the male genitalia.

The specific name is given in honour of Mr. Tatsuo HANATANI for his offer of interesting material.

Athemellus ueharaensis OKUSHIMA, sp. nov.

[Japanese name: Yaeyama-tatesuji-joukai]

(Figs. 11–14)

Male. Frons, cephalic area, pronotal marking, scutellum, both sides of each elytron, legs, pro-, meso- and metasterna and abdominal sternites dark brown to black; eyes, antennae, maxillary and labial palpi almost dark brown; mandibles reddish brown; vertex to lateral areas before eyes, circumference of pronotum, longitudinal stripe on each elytron, margins of leg joints, and claws yellow to yellowish brown. Body closely covered with fine yellowish pubescence; antennae and elytra with sparse yellowish bristles intermingled with some brown bristles in addition to primary pubescence; apical margin of clypeus and lateral margins of pronotum fringed with yellowish bristles; legs covered with yellowish bristles intermingled with some brown bristles.

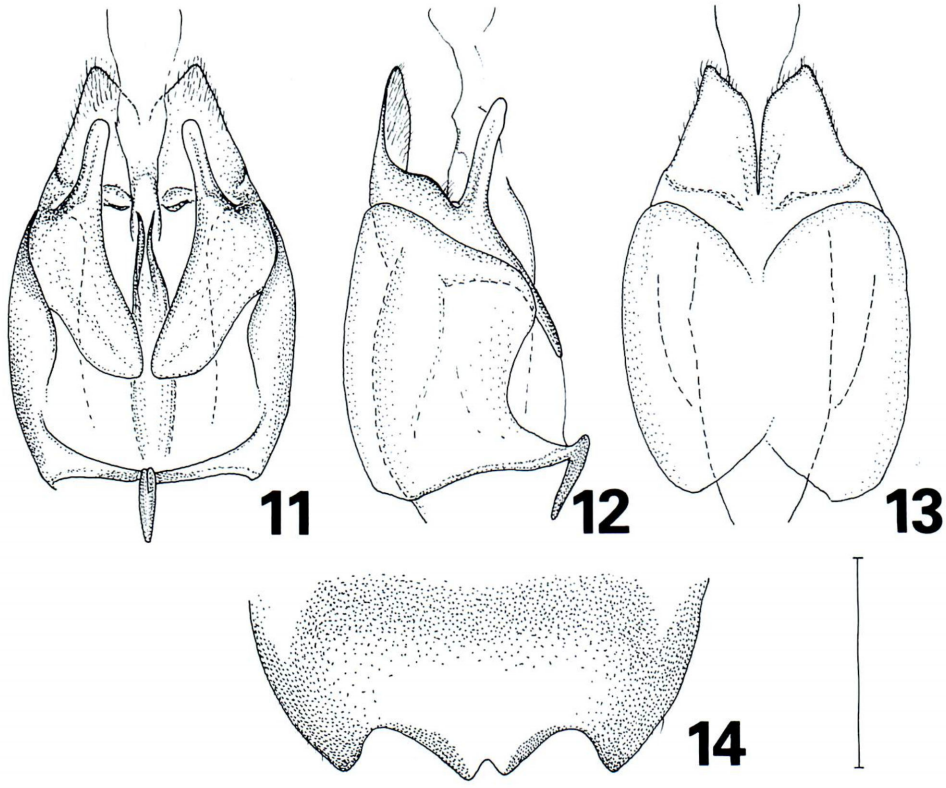
Head slightly shorter than width; central area of disc faintly hollowed, and depressed along the apical margin of clypeus and in lateral areas before eyes; apical margin of clypeus arcuate with its centre faintly indented; eyes not so large, globular and slightly prominent; antennae attaining to the middle of elytra, 1st segment clavate, 2nd short, 3rd to 11th subcylindrical, all antennal segments lacking groove, relative lengths of antennal segments as follows: 17 : 10 : 14 : 16 : 17 : 17 : 15 : 15 : 13.5 : 13 : 16.

Pronotum subquadrate, 0.92 times (in the holotype; range 0.91–0.92) as wide as head, 1.07 (1.06–1.07) times as long as wide; anterior and posterior margins weakly arcuate; lateral margins feebly sinuate; anterior angles rounded; posterior angles obtuse; disc swollen, especially so in the posterior area; antero-lateral areas hollowed; medio-longitudinal furrow distinct in posterior half and disappearing in anterior half; dorsal black marking large, rather broad behind the middle. Scutellum triangular with rounded apex.

Elytra conjointly 1.46 (1.43–1.46) times as wide as pronotum, 3.02 (2.93–3.02) times as long as wide, the sides subparallel; disc closely and rugosely punctate.

Apex of prosternal process concave. Mesosternum slightly convex along the median line. Relative lengths of hind tarsal segments as follows: 19 : 12 : 10 : 10 : 12.

Male genitalia: ventral process of each lateral lobe almost straight and slightly bending inwards; each lateral process of median lobe short and hardly apparent



Figs. 11–14. *Athemellus ueharaensis* OKUSHIMA, sp. nov. —— 11–13, Male genitalia (11, ventral view; 12, lateral view; 13, dorsal view); 14, 8th abdominal sternite in female. (Scale: 0.5 mm.)

in lateral view; dorsal plate of each lateral lobe narrowed towards the tip, the apex somewhat pointed (Figs. 11–13).

Length of body: 5.67 mm (in the holotype; range 5.02–5.67); length of hind tibia: 1.63 (1.53–1.63) mm.

Female. Body somewhat longer and wider than in the male. Vertex dark brown to black. Eyes not so prominent as in the male. Antennae a little shorter than in the male. Pronotum 0.98–1.05 times as wide as head, 0.90–1.05 times as long as wide. Elytra conjointly 1.43–1.47 times as wide as pronotum, 2.92–3.03 times as long as wide. Eighth abdominal sternite provided with two distinct prominences at the centre of terminal margin, with the sides widely concave (Fig. 14).

Length of body: 5.80–6.29 mm; length of hind tibia: 1.53–1.65 mm.

Type series. Holotype: ♂, Mt. Uehara-yama, Iriomote-jima Is., Ryukyus, 11–III–1995, Y. OKUSHIMA leg. Allotype: ♀, Hirakubo, Ishigaki-jima Is., Ryukyus, 6–III–1990, Y. OKUSHIMA leg. Paratypes: 1♀, same data as for the allotype;

2♀♀, Nosoko, Ishigaki-jima Is., Ryukyus, 6–III–1993, Y. OKUSHIMA leg.; 1♂, same data as for the holotype; 1♂, Kabiranakasuji, Ishigaki-jima Is., Ryukyus, 20–II–1996, T. FUKAISHI leg.; 3♂♂, 4♀♀, Kabiranakasuji, Ishigaki-jima Is., Ryukyus, 22–II–1996, T. FUKAISHI leg.

Distribution. Ryukyus (Ishigaki-jima Is., Iriomote-jima Is.).

Notes. This new species is closely related to *A. hanatanii* sp. nov. from Ishigaki-jima Is. and Iriomote-jima Is., but can be distinguished from the latter by somewhat larger body, the dark colour as a whole, and the apex of the dorsal plate of each lateral lobe somewhat pointed in the male genitalia.

Type Depository

All the holo- and allotypes described in the present paper are deposited in the collection of the Kurashiki Museum of Natural History. The paratypes will be preserved in the collections of the National Science Museum (Nat. Hist.), Tokyo, the Biological Laboratory, Nagoya Women's University, and so on.

Key to the Species of the Genus *Athemellus* from the Ryukyus

1. Body small, shorter than 6.5 mm in length ..... 2.
— Body large, longer than 7.0 mm in length ..... 3.
2. Frons yellowish brown to brown; apex of dorsal plate of each lateral lobe rounded in the male genitalia ..... *A. hanatanii* sp. nov.
— Frons dark brown to black; apex of dorsal plate of each lateral lobe somewhat pointed in the male genitalia ..... *A. ueharaensis* sp. nov.
3. Head and pronotum dark brown to black ..... *A. yaeyamanus* sp. nov.
— Head and pronotum orange yellow (in Ishigaki-jima Is.), or brown except for yellowish apical half of head (in Iriomote-jima Is.) .....
..... *A. ryukyuanus* (WITTMER).

要　約

奥島雄一：琉球列島のクビアカジョウカイ属．—— 琉球列島のクビアカジョウカイ属の種は，西表島から得られた標本に基づいて記載された，ヤエヤマフタイロジョウカイ *Athemellus ryukyuanus* (WITTMER) ただ1種が，これまで知られているだけであった．今回，ヤエヤマフタイロジョウカイの色彩変異を明かにし，さらに石垣島と西表島から新たに3新種を認め，それぞれヤエヤマクロジョウカイ *A. yaeyamanus* OKUSHIMA, sp. nov.，ハナタニジョウカイ *A. hanatanii* OKUSHIMA, sp. nov.，ヤエヤマタテスジジョウカイ *A. ueharaensis* OKUSHIMA, sp. nov. と命名して記載した．ヤエヤマクロジョウカイはいくぶんヤエヤマフタイロジョウカイに似ているが，頭部と前胸背板がより濃色で，雄交尾器の背板が幅広いこと，雌の第8腹板が両側に大きい切れ込みを備えることによって区別できる．ハナタニジョウカイは台湾から記載された *A. pictus* WITTMER に近縁であるが，前胸背板に大きい黒紋をもつこと，黄色の条を備える黒い上翅をも

つこと，雄交尾器の背板が長いことによって区別できる．ヤエヤマタテスジジョウカイは，外見がハナタニジョウカイにきわめてよく似ているが，体がやや大きく全体的に濃色であること，雄交尾器の背板の先端がいくぶん尖ることで区別できる．

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Elytra, Tokyo, **24** (1): 124, May 15, 1996

A New Record of *Stenhomalus fenestratus* (Coleoptera, Cerambycidae) in Indochina

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Stenhomalus fenestratus WHITE is a species widespread in the continental side of Asia including Taiwan, though previously recorded from only northern Thailand in the Indochinese Region. Recently, I had an opportunity to examine a male specimen of the species collected from northern Vietnam, as recorded below:

Specimen examined. 1 ♂, near Sapa, Lao Cai Province of northern Vietnam, 20–V–1995, N. KATSURA leg.

This *Stenhomalus* is known as a species showing slight geographical variation (NIISATO & MAKIHARA, 1991). The present specimen is rather similar to the specimens from northern Thailand in the darker coloration and broad body form. The measurements of body parts are as follows (in mm): BL 9.7, AL 14.5, HW 1.8, PL 1.75, PA 1.3, PB 1.2, PW 1.63, EL 5.8, EW 2.5.

I am indebted to Mr. Takao ARAI for his kind support of material.

Elytra, Tokyo, **24** (1): 125–130, May 15, 1996

A Redescription of *Xylographella punctata* (Coleoptera, Ciidae), with Description of a New Tribe

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and

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Abstract The Japanese ciid species, *Xylographella punctata*, is redescribed and illustrated. Morphological features of the genus *Xylographella* are discussed in detail, and a new tribe, Xylographellini, is established based on this genus.

Xylographella punctata, one of the Japanese ciid species, was described by MIYATAKE (1985) with only a brief diagnosis. Since then, detailed morphological features of this species have not been described or illustrated.

The monotypic genus *Xylographella* was established for the unique species, *X. punctata*, which is considerably different in morphological features from the other known species of the subfamily Ciinae. A more detailed description of the genus, in comparison with various genera of the family, is needed for clarifying its systematic status. As the result of our recent study, we have come to the conclusion that the genus *Xylographella* represents a new tribe of the subfamily. In this paper, we are going to redescribe and illustrate *X. punctata*, and to establish a new tribe, Xylographellini.

The abbreviations used herein are as follows: PL – medio-longitudinal length of pronotum; PW – greatest width of pronotum; EL – medio-longitudinal length of elytra from the base of scutellum to the elytral apices; EW – greatest combined width of elytra; TL – sum of PL and EL.

Before going further, we wish to express our gratitude to Dr. S.-I. UÉNO of the National Science Museum (Nat. Hist.), Tokyo, for his reading the manuscript and giving us useful suggestions.

Tribe **Xylographellini** nov.

Type genus: *Xylographella* MIYATAKE, 1985.

Included genera: *Xylographella* MIYATAKE and *Scolytocis* BLAIR?

Antennae with large and compact club; terminal segment of club provided with more than five sensillifers. Labium 3-segmented, prementum elongate and pentagonal; insertion of labial palpi near the middle of prementum; terminal segment of labial palpus widened. Prosternum relatively short, procoxae subconical, strongly projecting beyond the level of prosternal process. All tibiae spinulate laterally. Meso- and metafemora each with a longitudinal row of setiferous punctures on dorsum. Ninth abdominal sternite in male Y-shaped.

Remarks. The genus *Xylographella* belongs to the subfamily Ciinae in the sense of LAWRENCE (1974). The tribes of the subfamily Ciinae have been mainly determined by features of the procoxae, and up to the present, two tribes, Ciini and Orophiini, are recognized. The tribe Ciini has transverse or globular procoxae and the tribe Orophiini has subconical ones. Though procoxal conformation is no doubt important for defining tribes of the subfamily, there are other features that should be taken up for tribal classification. For instance, labial structure is identical between the Ciini and Orophiini, but is fundamentally different in *Xylographella*, though this genus is apparently allied to the Orophiini in procoxal features. Besides, conformation of antennal club with its sensillifers is unique in *Xylographella*, no intermediary in the characteristics of these organs having been known between this genus and the members of the other tribes. These peculiarities seem to us to suffice for recognition of a new tribe for the genus *Xylographella*, which should be called Xylographellini.

Genus ***Xylographella*** MIYATAKE, 1985

Xylographella MIYATAKE, 1985, Coleopt. Japan Col., Osaka, **3**: 279.

Type species: *Xylographella punctata* MIYATAKE, 1985, by monotypy.

Body short, cylindrical, strongly convex, rather stout, parallel-sided, glabrous on dorsum; vestiture consisting of very short fine hairs. Head strongly declined, almost exposed from pronotum; labium with prementum elongate and pentagonal, produced forward; insertion of labial palpus near the middle of prementum; terminal segment of labial palpus subtriangular; genal ridge very strongly carinate; antennal fossa very deep. Antenna 10-segmented; 8th to 10th segments forming a compact club; 10th segment provided with seven or more sensillifers. Pronotum somewhat constricted anteriorly, narrowly margined laterally; lateral margins coarsely crenulate; anterior margin simple in both sexes; anterior corners obtusely angulate in lateral view. Elytra irregularly and umbilically punctate; suture not inflexed at apex. Hind wing fully developed. Prosternal disc in front of coxae short, transversely excavated; procoxae projecting; prosternal process short and very thinly lamellar. All tibiae strongly expanded apicad, spinulose laterally. Meso- and metafemora longitudinally setose on dorsum. Tarsal formula 4–4–4 in both sexes. Abdominal fovea in male absent. Ninth sternite in male Y-shaped.

Secondary sexual characters not found.

Remarks. This genus is somewhat allied to the Samoan genus *Scolytocis* BLAIR in general features, but in the latter genus the antenna is 9-segmented, the elytral punctures are seriate and the tarsal formula is 3–3–3.

Xylographella punctata MIYATAKE, 1985

[Japanese name: Kokikui-tsutsukinokomushi]
(Figs. 1–10)

Xylographella punctata MIYATAKE, 1985, Coleopt. Japan Col., Osaka, **3**: 280–281, pl. 46, fig. 4.

Redescription. Male. Body subquadrate, somewhat stout, shiny on dorsum, strongly convex. Color dark reddish brown; mouthparts excluding mandibles, antennal funicles and tarsi yellowish brown. Punctures on dorsum each bearing a fine, short and inconspicuous hair.

Head largely exposed from pronotum, somewhat strongly convex, finely and conspicuously reticulated, closely punctate; punctures large but shallow; frontoclypeal ridge narrowly margined and very slightly produced on each side; mandibles not salient anteriorly.

Pronotum slightly broader than long; anterior margin not ridged, gently rounded; anterior corners obtusely angulate in lateral view, forming an angle of

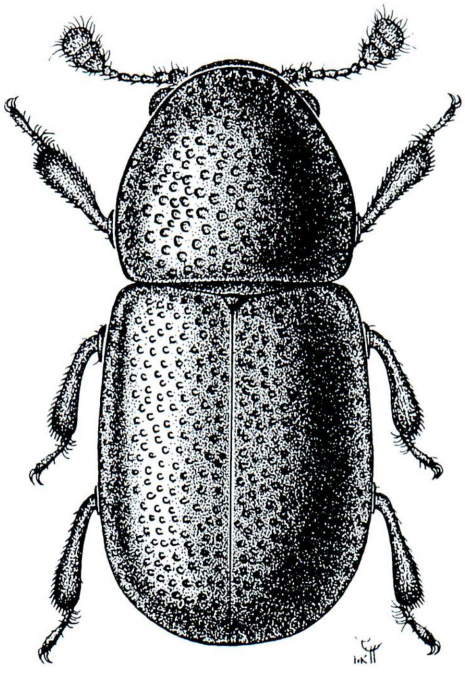


Fig. 1. *Xylographella punctata* MIYATAKE.

about 135°; lateral margins narrowly ridged, invisible from above, relatively strongly divergent from base to basal two-fifths, then rather rapidly convergent apicad, feebly arcuate in lateral view; basal margin narrowly ridged, and very slightly bisinuate; hind angles broadly rounded in lateral view; dorsum somewhat shiny, irregularly, distinctly and closely punctate; punctures uniform in size, umbiliform, somewhat distorted, shallow, large but clear, each puncture bearing a very short and fine hair; interstices between punctures conspicuously and finely reticulated. Scutellum small, triangular, entirely glabrous. Elytra subquadrate; sides slightly divergent from base to basal two-thirds, then gradually convergent apicad, invisible from above except for basal corners; disc somewhat shiny, irregularly and very closely punctate, somewhat smaller but similar in conformation to those on pronotum; punctures clear and close, seemingly confluent in some places, each bearing a short and fine hair; suture narrowly margined.

Prosternal disc in front of coxae transversely and somewhat conspicuously depressed; prosternal process reduced into a very thin lamella and on the same level as the base of prosternum. First abdominal sternite devoid of pubescent fovea.

Eighth abdominal sternite subtrapezoidal, with the apical margin shallowly emarginate at the middle, bearing a mixture of long and short hairs. Tegmen very narrowly elongate, somewhat needle-shaped, sides subparallel from base to basal seven-tenths, then gradually convergent apicad, with conspicuous granules in apical parts.

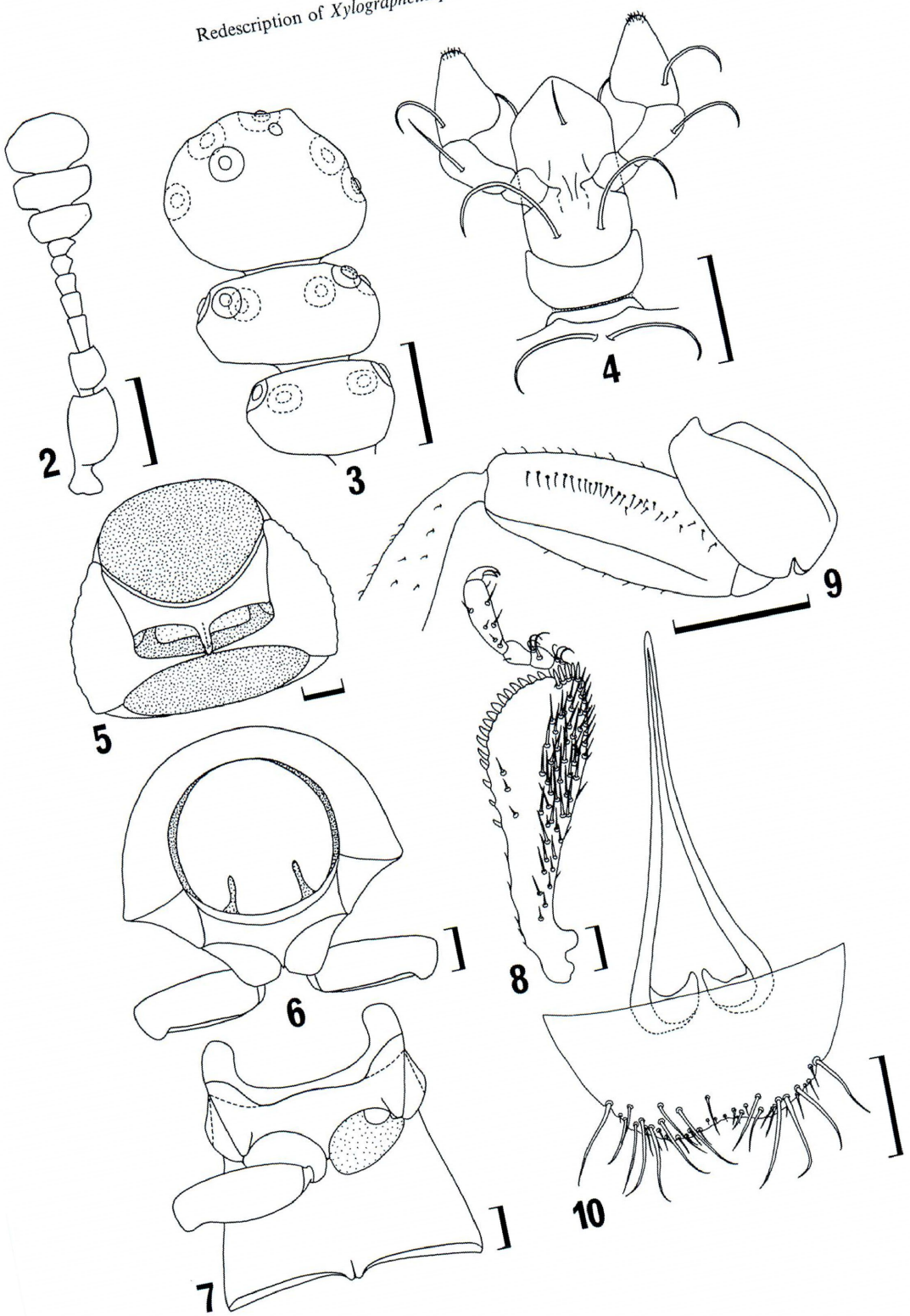
Variation in the type series.

Male & female (n=22)

TL (mm): 1.36–1.65 (1.49±0.08)	EW (mm): 0.7–0.82 (0.77±0.04)
TL/EW: 1.86–2.02 (1.93±0.05)	PL/PW: 0.82–0.93 (0.89±0.03)
EL/EW: 1.07–1.19 (1.14±0.03)	EL/PL: 1.3–1.53 (1.43±0.05)

Specimens examined. [Honshu] 〈Tochigi Pref.〉 10 exs., Irohazaka, Nikkô City, 5–IV–1992, M. KAWANABE leg. 〈Gifu Pref.〉 3 exs., Hakusan, Nôgô, Neo-mura, Motosu-gun, 20–V–1993, K. SETSUDA leg. 〈Nara Pref.〉 10 exs., Mt. Ôminesan, 7～9–VIII–1989, M. KAWANABE leg. [Shikoku] 〈Ehime Pref.〉 2 exs., Mt. Ishizuchisan, 22–VII–1958, M. MIYATAKE leg.; 1 ex., Odamiyama, 10–VI–1984, E. YAMAMOTO leg.; 2 exs., same locality, 27～28–IV–1989, M. KAWANABE leg.; 4 exs., Mt. Omogosan, 23–VII–1989, M. KAWANABE leg. 〈Tokushima Pref.〉 75 exs., Mt. Tsurugisan, 9–VIII–1954, M. HIRAI leg. (including holotype and 21 paratypes); 1 ex., Ichinomori～Fujinoike, Mt. Tsurugisan, 12–VII–1976, M. MIYATAKE leg. These specimens are deposited in the collection of the Entomological Laboratory,

Figs. 2–10. *Xylographella punctata* MIYATAKE. ——2, Antenna; 3, antennal club; 4, labium, ventral view; 5, prothorax, ventral view; 6, prothorax, frontal view; 7, meso- and matasterna, ventral view; 8, left protibia; 9, left middle leg, dorsal view; 10, eighth and ninth abdominal sternites in male. Scales for Figs. 2, 5, 6, 7, 8 & 9: 0.1 mm; for Figs. 3, 4 & 10: 0.05 mm.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College of Agriculture, Ehime University, Matsuyama, Japan.

Distribution. Japan (Honshu, Shikoku).

Host fungus. *Fomes fomentarius* (L.: FR.) FR. (Tsuriganetake in Japanese).

要　約

川那部　真・宮武睦夫：コキクイツツキノコムシの再記載およびこれに基づく族の創設．—— コキクイツツキノコムシ*Xylographella punctata*は，著者の一人である宮武により，1985年に原色日本甲虫図鑑（III）に新属新種として記載された種である．しかしこの記載は短くて不十分であり，またその後に再記載がなされていなかったので，著者らは本種について詳細な再記載を行った．また本種がツツキノコムシ亜科Ciinaeに属する他の種とはいちじるしく異なる形態的特徴をもつことから，他属との詳細な比較検討を行い，明らかに既知の族とは異なる独自の族を形成していると認められたので，コキクイツツキノコムシ属*Xylographella*に基づいてコキクイツツキノコムシ族Xylographelliniを新しく設立して記載した．

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Elytra, Tokyo, **24** (1): 131–140, May 15, 1996

Study of Asian Strongyliini (Coleoptera, Tenebrionidae)

I. Six New *Strongylium* Species from Thailand, Laos and Taiwan, together with a New Replacement Name

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Abstract This is the first part of a study of the Asian Strongyliini (Coleoptera, Tenebrionidae). Six new species from Thailand, Laos and Taiwan, *Strongylium kerleyi* sp. nov., S. *girardianum* sp. nov., *S. yukae* sp. nov., *S. jae* sp. nov., *S. andoi* sp. nov., and *S. yasuhikoi* sp. nov., are described. Besides, the name *miwai* is newly proposed for *S. insolitus* MIWA, 1939, which is preoccupied by *S. insolitum* GEBIEN, 1913.

The members of the tribe Strongyliini are characterized by the body elongate and subcylindrical, mostly winged, the antennae mostly slender, the head not inserted into the prothrax as far as the eyes, which are usually very large, the inter-procoxal space gently raised though the prosternal process is depressed and obtuse, the mesosternum only weakly depressed in front, the legs long with the tarsi ventrally pubescent, and so on. More than 2,200 species of 60 genera have hitherto been known from the world. The largest group of the tribe is the genus *Strongylium* KIRBY, 1818, which comprises almost 300 described species from Asia, more than 200 from Oceania including the Papua-Australian Region, more than 300 from Africa and about 400 from the Americas.

In my collection of tenebrionid beetles, there are many unknown species, which have not been studied for a long time. Meanwhile, on the occasion of visiting the Muséum National d'Histoire Naturelle, Dr. Claude GIRARD kindly proposed me for examination of a great number of strongyliine materials in the collection of the Muséum. Thus, I have started in studying the Asian Strongyliini.

This paper is the first part of my study of the Asian Strongyliini and contains the descriptions of six new species from Thailand, Laos and Taiwan, together with a proposition of replacement of a rejected homonym.

I wish to express my cordial appreciation to Dr. Claude GIRARD, Muséum National d'Histoire Naturelle, Paris, for his invaluable consideration in the course of the present study. Deep indebtedness should be expressed to Mr. Malcolm KERLEY, the Natural History Museum, London, and also to Dr. Ottó MERKL, Természettudományi Múzeum, Budapest, for their kind help. I thank Dr. Yasuhiko

HAYASHI of Kawanishi City and Mr. Kiyoshi ANDO of Osaka Prefecture, for their assistance. Thanks are also due to Mr. Kaoru SAKAI of Tokyo for taking photographs inserted in this paper. Finally, I express my deepest appreciation to Dr. Shun-Ichi UÉNO, Emeritus curator of the National Science Museum (Nat. Hist.), Tokyo, for his constant guidance on my taxonomic studies.

Depositories of the holotypes of the new species to be described are given in the text.

Strongylium kerleyi sp. nov.

(Fig. 1)

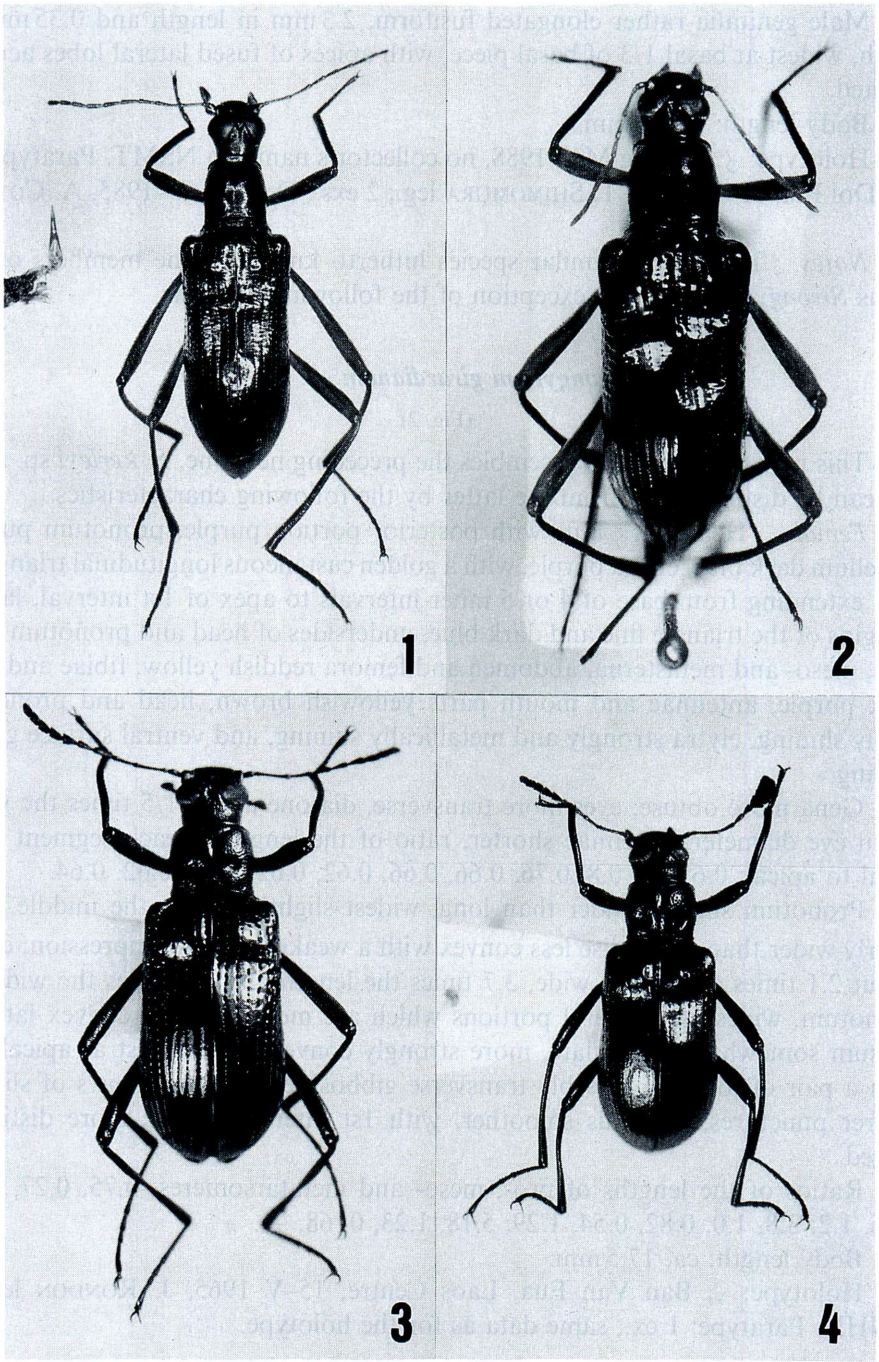
Head, pronotum and scutellum dark violet, clypeus feebly greenish, elytra dark blue with a large elongate-triangular, purplish portion which extends from base of 4 inner intervals to apex of 1st, margins of the triangle with a golden tinge, meso- and metasterna, abdomen and femora reddish yellow, antennae and mouth parts yellowish brown, tibiae and tarsi almost dark blue; dorsal surface metallically shining, ventral surface somewhat vitreously shining. Body elongate, rather strongly convex above.

Head subdecagonal, finely and rather closely punctate; clypeus semicircular, gently bent downwards and truncate in front; gena subrectangular and raised; frons somewhat thinly T-shaped, impressed in postero-medial portion; eyes very large, roundly produced laterad and widely inlaid into head, interocular space narrow and about 1/12 times the width of an eye diameter in male. Antennae filiform, reaching basal 1/4 of elytra, ratio of the length of each segment from basal to apical: 0.55, 0.2, 0.8, 0.9, 0.64, 0.63, 0.62, 0.6, 0.6, 0.59, 0.65.

Pronotum quadrate, slightly wider than long, finely punctate, the punctures sparser than those on head; apex rather thickly bordered and feebly produced forwards; base thickly bordered and sinuous on each side; sides gently produced laterad; front angles narrowly rounded, hind angles gently angulate; disc moderately convex, with a longitudinal median impression. Scutellum sublinguiform, irregularly aciculate or sparsely punctate.

Elytra 2.4 times as long as wide, 4 times the length and 1.6 times the width of pronotum, widest at base; dorsum distinctly undulate, highest at apical 2/5, with a pair of gibbosities at basal 1/8 lying on 1st to 4th intervals, two transverse depressions at basal 2/9 and basal 2/5, and also with a transverse ridge at basal 3/10; disc with rows of punctures, which are small and rounded in the inner portion and become larger and elongate in the outer portion; intervals slightly elevated, sparsely scattered with microscopic punctures, finely and somewhat transversely aciculate, area before the middle of 5th to 9th intervals rather coarsely and transversely wrinkled; humeri rather distinctly swollen.

Legs slender; ratios of the lengths of pro-, meso- and metatarsomeres: 0.75, 0.25, 0.23, 0.22, 1.2; 3.1, 0.87, 0.7, 0.57, 1.25; 3.8, 0.87, 0.66, 1.29.



Figs. 1–4. Habitus of *Strongylium* spp. —— 1. *S. kerleyi* sp. nov., holotype, ♂. —— 2. *S. girardianum* sp. nov., holotype, ♀. —— 3. *S. yukae* sp. nov., holotype, ♂. —— 4. *S. jae* sp. nov., holotype, ♂.

Male genitalia rather elongated fusiform, 2.3 mm in length and 0.35 mm in width, widest at basal 1/3 of basal piece, with apices of fused lateral lobes acutely pointed.

Body length: 13–16 mm.

Holotype: ♂, Chiang Mai, 1988, no collector's name, in NSMT. Paratypes: 1 ex., Doi Pui, 11–V–1982, T. SHIMOMURA leg.; 2 exs., Doi Pui, V–1985, A. COTTON leg.

Notes. There is no similar species hitherto known in the members of the genus *Strongylium* with the exception of the following new one.

Strongylium girardianum sp. nov.

(Fig. 2)

This new species closely resembles the preceding new one, *S. kerleyi* sp. nov., but can be distinguished from the latter by the following characteristics.

Female. Head dark blue with posterior portion purple, pronotum purple, scutellum dark blue, elytra purple, with a golden castaneous longitudinal triangular area extending from base of 4 or 5 inner intervals to apex of 1st interval, lateral margins of the triangle fine and dark blue, undersides of head and pronotum dark blue, meso- and metasterna, abdomen and femora reddish yellow, tibiae and tarsi dark purple, antennae and mouth parts yellowish brown, head and pronotum feebly shining, elytra strongly and metallically shining, and ventral surface gently shining.

Gena more obtuse; eyes more transverse, diatone about 1/5 times the width of an eye diameter; antennae shorter, ratio of the length of each segment from basal to apical: 0.6, 0.2, 0.8, 0.76, 0.66, 0.66, 0.62, 0.62, 0.62, 0.62, 0.64.

Pronotum slightly wider than long, widest slightly before the middle, base clearly wider than apex; disc less convex with a weaker median impression; elytra about 2.1 times as long as wide, 3.7 times the length and 1.7 times the width of pronotum, widest at humeral portions which are more strongly convex laterad; dorsum somewhat bi-undulate, more strongly convex and highest at apical 1/4, with a pair of lower and feebly transverse gibbosities; disc with rows of slightly clearer punctures; intervals smoother, with 1st interval a little more distinctly ridged.

Ratios of the lengths of pro-, meso- and metatarsomeres: 0.75, 0.27, 0.29, 0.26, 1.2; 3.8, 1.0, 0.82, 0.54, 1.29; 5.18, 1.23, 0. 68, —.

Body length: ca. 17.5 mm.

Holotype: ♀, Ban Van Eua, Laos Centre, 15–V–1965, J. RONDON leg. in MNHN. Paratype: 1 ex., same data as for the holotype.

Strongylium yukae sp. nov.

(Fig. 3)

Head greenish blue, pronotum purple with marginal portions blue, scutellum blue, major portions of elytra castaneous with blue lateral portions (7th to 9th intervals), ventral surface and legs blue; dorsal surface almost glabrous and rather strongly metallically shining. Body rather elongate and strongly convex above.

Head finely and closely punctate; clypeus transverse and short, bent downwards in front, depressed in posterior portion; gena subrectangular and distinctly raised; frons somewhat T-shaped, impressed at the middle of posterior portion; eyes very large and somewhat comma-shaped in dorsal view, convex laterad and widely inlaid into head, diatone about 1/10 times the width of an eye diameter in male, 1/7 times in female. Antennae medium-sized for a species of this genus, 7 apical segments flattened and clavate, ratio of the length of each segment from basal to apical: 0.55, 0.2, 0.8, 0.65, 0.55, 0.45, 0.45, 0.4, 0.4, 0.35, 0.35.

Pronotum quadrate and slightly wider than long, finely and irregularly punctate; apex nearly straight, widely triangularly depressed; base almost straight, ridged along margin; sides feebly arcuate laterad; front angles rounded, hind angles slightly projected postero-laterad; disc convex, longitudinally impressed in the middle, with an impression at posterior 1/3 on each side. Scutellum subcordate, sparsely scattered with minute punctures.

Elytra 1.9 times as long as wide, 3.6 times the length and 1.7 times the width of pronotum, subparallel-sided though widest at apical 1/3; dorsum strongly convex and highest at basal 3/8, with a pair of gibbosities at basal 1/8 lying on 2nd to 5th intervals, and also with a transverse depression at basal 2/9 just behind the gibbosities; disc punctato-striate, the striae fine and often disappearing, the punctures somewhat elongate and becoming coarser in lateral portion; intervals feebly convex and scattered with microscopical punctures; sides steeply declined to lateral margins, which enclose the hind body; humeri swollen; apices roundly expanded posteriad.

Male anal segment semicircularly concave and haired in posterior 2/3, truncate at apex, female anal segment not modified. Legs elongate; male protibia distinctly curved, with apical 2/5 weakly twisted and slightly gouged, female protibia simple in shape; male metatibia with basal half flattened and twisted, female metatibia simple in shape; ratios of the lengths of pro-, meso- and metatarsomeres: 0.35, 0.23, 0.22, 0.2, 1.2; 2.25, 0.9, 0.8, 0.6, 1.4; 2.3, 0.75, 0.55, 1.42.

Male genitalia rather slender, 2.7 mm in length and 0.3 mm in width, fused lateral lobes subfusiform with pointed apices.

Body length: 13–15 mm.

Holotype: ♂, Doi Pui, Chiang Mai Pref., NW Thailand, 2–V–1985, K. MASUMOTO leg., in NSMT. Paratypes: 4 exs., same data as for the holotype; 8 exs., Chiang Mai, 1988, no collector's name; 2 exs., Mt. Doi Pui, V–1985, A.

COTTON leg.; 2 exs., Doi Suthep, Chiang Mai Pref., 3–VI–1986, H. HIRASAWA leg.; 1 ex., Doi Suthep, 31–V–1985, M. TAO leg.; 1 ex., Doi Pui, 9–V–1982, T. SHIMOMURA leg.; 1 ex., Phuping Palace, Chiang Mai Pref., 3–V–1984, T. ENDO leg.; 1 ex., Wiang Papao, Chiang Rai Pref., 2–VI–1993, no collector's name; 1 ex., Wiang Papao, 8–VI–1993, 1 ex., Chiang Mai env., V–1995, 1 ex., Mae Taeng, Chiang Mai Pref., 12–VI–1991, Minetti-FERREORO leg. (coll. BEČVÁŘ).

Notes. This new species resembles *Strongylium baudoni* ARDOIN, 1973, originally described from Laos, but can be distinguished from the latter by the smaller and narrower body, the elytra with castaneous-coloured portions more widespread (from 1st to 6th or 7th intervals in the present species, instead of 1st to 5th intervals in *S. baudoni*), and the elytral apices more distinctly expanded posteriad in male.

Strongylium jae sp. nov.

(Fig. 4)

This new species resembles *Strongylium schenklingi* GEBIEN, 1913, originally described from southern Taiwan, but can be distinguished from the latter by the following characteristics:

Body shorter and more compact. Head, legs and major portions of ventral surface dark blue though some parts of the latter are greenish, pronotum and scutellum dark violet, major portions of elytra purple with a coppery tinge under certain light, base, humeral portions and gibbosities of elytra golden green, basal portions of 7th to 9th intervals, and also apical portions of 1st to 9th dark greenish blue. Dorsal surface strongly and metallically shining.

Head slightly narrower; gena with outer margin more distinctly angulate and strongly raised; diatone about 1/5 times the width of an eye diameter in male, 1/4 times in female. Antennae shorter, with 7 apical segments more strongly flattened and distinctly clavate, ratio of the length of each segment from basal to apical: 0.6, 0.2, 0.83, 0.65, 0.43, 0.4, 0.4, 0.39, 0.33, 0.32, 0.35.

Pronotum subquadrate, about 1.2 times as wide as long, more closely and strongly punctate; apex very widely triangularly depressed in middle, with apical margin very slightly produced forwards; base straightly ridged; sides gently produced laterad; front angles rounded, hind angles feebly projected in dorsal view; disc a little more strongly convex, with a longitudinal medial impression and also with a deeper, oblique impression at basal 1/4 on each side. Scutellum triangular and slightly convex, sparsely scattered with minute punctures.

Elytra 1.8 times as long as wide, 3.8 times the length and 1.6 times the width of pronotum, almost subparallel-sided though widest at apical 1/3; dorsum with a pair of more distinct gibbosities at basal 1/10 lying from 2nd to 5th intervals, and a deeper transverse depression at basal 1/4; disc with rows of very slightly elongate punctures, which are a little smaller than in *S. schenklingi*; intervals very

slightly elevated and more distinctly scattered with minute punctures; sides steeply declined to lateral margins, which are invisible from above; humeri more distinctly swollen; apices very slightly expanded posteriad.

Male anal segment truncate at apex, subelliptically and more narrowly concave in the middle of apical portion; male protibia gently bent downwards in apical 2/5, feebly produced downwards in apical 1/5; male metatibia gently twisted at the middle; ratios of the lengths of pro-, meso- and metatarsomeres: 0.45, 0.21, 0.23, 0.22, 1.2; 2.7, 1.0, 0.74, 0.48, 1.53; 2.54, 0.72, 0.6, 1.48.

Male genitalia somewhat elongated fusiform, 2.4 mm in length and 0.38 mm in width, weakly constricted between basal piece and fused lateral lobes, whose apices are pointed.

Body length: 11–14 mm.

Holotype: ♂, Doi Pui, Chiang Mai Pref., 9–V–1982, T. SHIMOMURA leg., in NSMT. Paratypes: 3 exs., Doi Pui, V–1986, A. COTTON leg.; Doi Pui, 1 ex., 9–V, 1 ex., 15–V, 1 ex., 17–V–1982, T. SHIMOMURA leg.; Doi Suthep, 1 ex., 8–V, 1 ex., 16–V–1985, M. TAO leg.; 1 ex., Doi Pui, 26–VI–1984, no collector's name; 1 ex., Doi Pui, 20–VI–1984 (coll. BEČVÁŘ).

Strongylium yasuhikoi sp. nov.

(Figs. 5, 7)

This new species also resembles *Strongylium schenklingi* GEBIEN, 1913, but can be distinguished from the latter by the following characteristics:

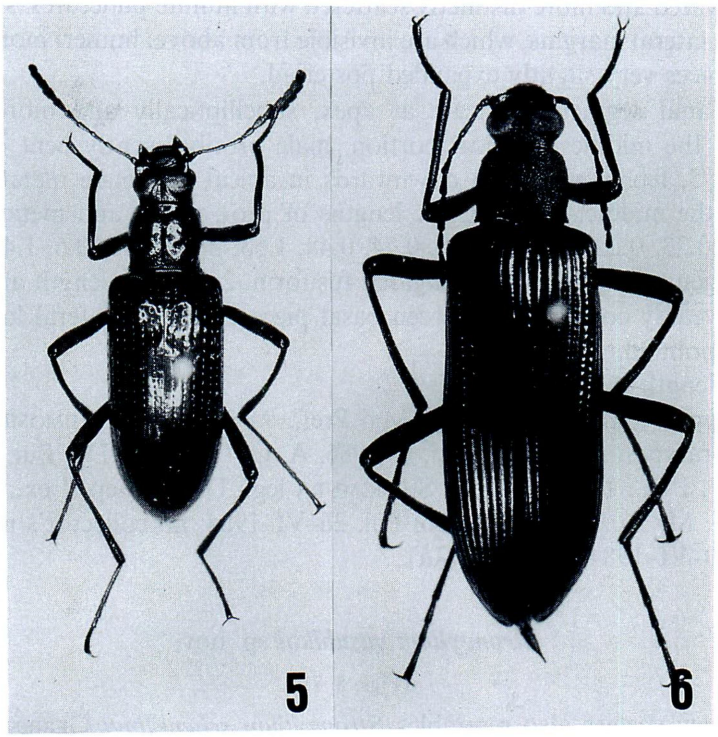
Body slightly slenderer, with elytra mostly purplish except for brassy posterior portion. Eyes more rounded and convex; apical segments of antennae a little more widely dilated to each apex, ratio of the length of each segment from basal to apical: 0.6, 0.2, 1.0, 0.65, 0.6, 0.6, 0.6, 0.6, 0.45, 0.45, 0.5.

Pronotum slightly narrower and 1.1 times as wide as long (1.3 times in *S. schenklingi*); elytra a little longer, 2.2 times as long as wide (about twice in the latter), with anterior swellings and humeral portions more distinct; legs slightly thinner, with ratios of the lengths of pro-, meso- and metatarsomeres: 0.3, 0.22, 0.22, 0.23, 1.2; 1.8, 0.78, 0.65, 0.45, 1.4; 1.8, 0.68, 0.53, 1.4.

Intercoxal space of prosternum narrower; male anal sternite narrower and longer, with narrower apical concavity (see Fig. 7: *S. yasuhikoi* sp. nov., and Fig. 8: *S. schenklingi* GEBIEN); male genitalia larger, with fused lateral lobes longitudinally impressed in medial portion.

Body length: 14.5–15.5 mm.

Holotype: ♂, Mt. Kuantoushan, Nantou Hsien, Central Taiwan, 13–VI–1993, LUO Chinchi leg., in NSMT. Paratypes: 1 ex., same data as for the holotype; 1 ex., Lienhwachi, Nantou Hsien, 29–VI–1972, Y. KIYOYAMA leg.; 1 ex., Shizitou, Nantou Hsien, 23–V–1992, LUO Chinchi leg.



Figs. 5–6. Habitus of *Strongylium* spp. —— 5. *S. yasuhikoi* sp. nov., holotype, ♂. —— 6. *S. andoi* sp. nov., holotype, ♂.

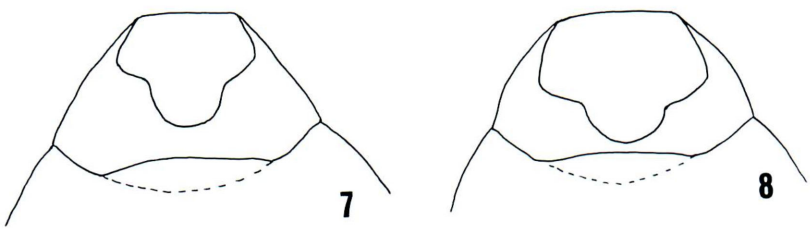
Strongylium andoi sp. nov.

(Fig. 6)

Brownish black, with mouth parts, claws, etc., lighter in colour, head, pronotum, scutellum and legs almost mat, elytra feebly and brassily shining. Elongate and subparallel-sided.

Head subdecagonal, gently convex, closely punctate; clypeus semicircular, with apex subtruncate and bent downwards; gena obtusely produced and raised laterad; frons somewhat T-shaped, slightly impressed medially; eyes very large, distinctly convex laterad and widely inlaid into head, diatone about 0.2 times the width of an eye diameter. Antennae rather filiform, reaching basal 1/7 of elytra, ratio of the length of each segment from basal to apical: 0.65, 0.23, 1.1, 0.72, 0.7, 0.68, 0.62, 0.57, 0.58, 0.52, 0.58.

Pronotum subquadrate, 1.2 times as wide as long, at apex narrower than at base; apex nearly straight and slightly rimmed; base weakly and widely bisinuous, thickly rimmed, the rim minutely punctate; sides gently rounded and feebly sinuous before base; front angles rounded, hind angles rather acute in dorsal view; disc



Figs. 7–8. Male anal sternites. —— 7. *S. yasuhikoi* sp. nov. —— 8. *S. schenklingi* GEBIEN.

feebly convex and closely punctate, the punctures often fused with one another. Scutellum triangular, finely punctate.

Elytra 2.5 times as long as wide, 5.4 times the length and 1.7 times the width of pronotum, slightly widened in posterior portion and widest at apical 1/3; disc rather strongly punctato-striate, the punctures in inner striae small and dense, and those in outer becoming larger, sparser, and often slightly elongate; intervals rather strongly convex, minutely punctate and finely and transversely aciculate; humeri feebly convex; epipleura complete.

Anal sternite gently depressed apicad; legs slender, without any peculiarities; ratios of the lengths of pro-, meso- and metatarsomeres: 0.5, 0.22, 0.22, 0.26, 1.28; 1.8, 0.68, 0.67, 0.47, 1.28; 2.26, 0.73, 0.57, 1.3.

Male genitalia elongated fusiform, about 4 mm in length, with apical portion of fused lateral lobes gently prolonged.

Body length: 19.5–23.5 mm.

Holotype: ♂, Mt. Kuantoushan, Nantou Hsien, Central Taiwan, 17–VI–1993, LUO Chinchi leg., in NSMT. Paratypes: 1 ex., same data as for the holotype, 3 exs., 15–VI–1993, same locality and collector as for the holotype; 3 exs., Chutung, 3–VI–1991, LUO Chinchi leg.

Notes. This new species somewhat resembles *Strongylium carbonarium* GEBIEN, 1913, widely distributed in Taiwan, but can be distinguished from the latter by the smaller body with feebly metallically shining elytra, the pronotal base more widened, the elytra more strongly punctato-striate, the punctures in outer portions becoming obviously sparser and coarser, the intervals more strongly convex, the antennae shorter, and the larger male genitalia.

Replacement of a Preoccupied Name

Strongylium miwai nom. nov.

Strongylium insolitus MIWA, 1939, Zool. Mag., Tokyo, **51**: 413 [nec GEBIEN, 1913].

Notes. MIWA (1939) described *Strongylium insolitus* from Formosa, but the specific name is preoccupied by *S. insolitum* GEBIEN, 1913, originally described from the Philippines. A new replacement name is therefore proposed herewith.

要　約

益本仁雄：アジア産ナガキマワリ族の研究．I．タイ，ラオスおよび台湾産ナガキマワリ属の6新種，並びに被先取名の置換について．—— アジア産ナガキマワリ族の研究の第1回としてナガキマワリ属を取り上げ，北部タイから3新種，*Strongylium kerleyi* sp. nov., *S. yukae* sp. nov., *S. jae* sp. nov.，中央ラオスから1新種，*S. girardianum* sp. nov. を，さらに，中部台湾から2新種，*S. yasuhikoi* sp. nov., *S. andoi* sp. nov. を記載した．MIWA (1939) は，台湾から *Strongylium insolitus* を記載したが，この名はGEBIEN (1913) によって，すでにフィリピン産の種に与えられているので，置換名として *S. miwai* nom. nov. を提唱した．

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Elytra, Tokyo, **24** (1): 141–146, May 15, 1996

New Record of *Obrium semiformosanum* (Coleoptera, Cerambycidae) from Northwestern Kyushu, Southwest Japan

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Abstract A new subspecies of *Obrium semiformosanum* is described from Kyushu, Southwest Japan. It is distinguished from the nominotypical subspecies occurring in Taiwan by the slender body with elongate elytra and different configuration of male genital organ.

In June of 1983, Mr. Norito ABIRU collected a strange *Obrium* species by a light trap set at his house located on Atagoyama Hill near the centre of Nagasaki City, northwestern Kyushu. It was provisionally recorded then by ABIRU and IMASAKA (1983) as an unknown species related to *O. japonicum* PIC (1904, p. 22). However, its true systematic status was not clarified for twelve years. Recently, we had an opportunity to examine the *Obrium* species in question in comparison with other congeners of the genus occurring in the neighbouring areas of the Japanese Islands. After a careful examination, it has become clear that the unknown species has closer relationship to *O. semiformosanum* HAYASHI (1974, pp. 18–19) originally recorded from Taiwan. In this short paper, we will introduce it to the Japanese fauna as a new geographical race of the Taiwanese species, under the name of *O. semiformosanum abirui* subsp. nov.

Before going further, we wish to express our sincere gratitude to Dr. Shun-Ichi UÉNO of the National Science Museum (Nat. Hist.), Tokyo, for his constant guidance, and also to Messrs. Norito ABIRU of Nagasaki and Shôichi IMASAKA of Fukuoka for their kindness in submitting the valuable specimen used in this study. The abbreviations used herein are as follows: HW – maximum width of head including eyes; PW – maximum width of pronotum; PA – apical width of pronotum; PB – basal width of pronotum; PL – length of pronotum; EW – maxi-

mum width of elytra; EL – length of elytra.

Obrium semiformosanum abirui NIISATO et TAKAKUWA, subsp. nov.

[Japanese name: Nagasaki-ameiro-kamikiri]
(Figs. 1, 2 a–c)

Obrium sp.: ABIRU & IMASAKA, 1983, Koganemushi, Nagasaki, (42), p. 41, fig.10; IMASAKA *et al.*, 1994, ibid., (56), p. 16.

Different from the nominotypical subspecies by the darker coloration, longer body, weakly though distinctly emarginate sides of elytra whose punctuation is larger and deeper, and also elongate apical part of median lobe of male genital organ.

Male. Body small and elongate, with widely separated eyes, and long and relatively thin appendages. Colour reddish brown, shiny and slightly translucent, with dark reddish brown antennae and legs except for yellowish brown basal parts of femora, palpi and elytra yellowish, eyes and inner sides of mandibles black.

Head including eyes large though not so voluminous, almost smooth, sparsely clothed with long pale yellow hairs, HW/PA 1.43, HW/PW 1.22; mandibles broad and rather short, briefly hooked at apices; maxillary palpus with terminal segment elongated spindle-shaped, widest at middle; clypeus 0.58 times as long as the basal width, smooth, transversely truncate at apex, with fronto-clypeal suture weakly arcuate near middle and not so deep; frons strongly transverse, 0.32 times as long as the basal width, gently raised, with a vestigial median longitudinal groove extending to vertex; vertex gently raised, with hardly prominent antennal tubercles; occiput weakly raised, provided with a few shallow punctures; eyes strongly prominent laterad, widely separated from each other, their interspace a little more than 1/3 on dorsum and 9/20 on venter the maximum width of head. Antennae long and filiform, nearly 1.4 times as long as body; scape elongate and clavate, slightly longer than segment 3, widest at apical 1/3, shiny, clothed with long pale yellow hairs; segment 2 twice its apical width, thinly haired; segments 3–4 weakly thickened at apices, rather densely with pale yellow hairs; terminal segment weakly arcuate.

Pronotum long and narrow, hardly contracted at both apex and base, PL/PA 1.39, PL/PW 1.19, PA/PB 1.09, PB/EW 0.54, PL/EL 0.29; sides almost parallel in front, weakly rounded and arcuately emarginate to roundly prominent lateral tubercles just before the middle, then weakly arcuate and sinuate to base; base gently emarginate; disc moderately convex though transversely impressed at apical and basal 1/3, almost even near the middle, scattered with rather large punctures, each of which is provided with a long flying pale yellow hair. Scutellum narrowly triangular, thinly pubescent.

Elytra long and narrow, moderately ample posteriad, EL/EW 2.87; sides with

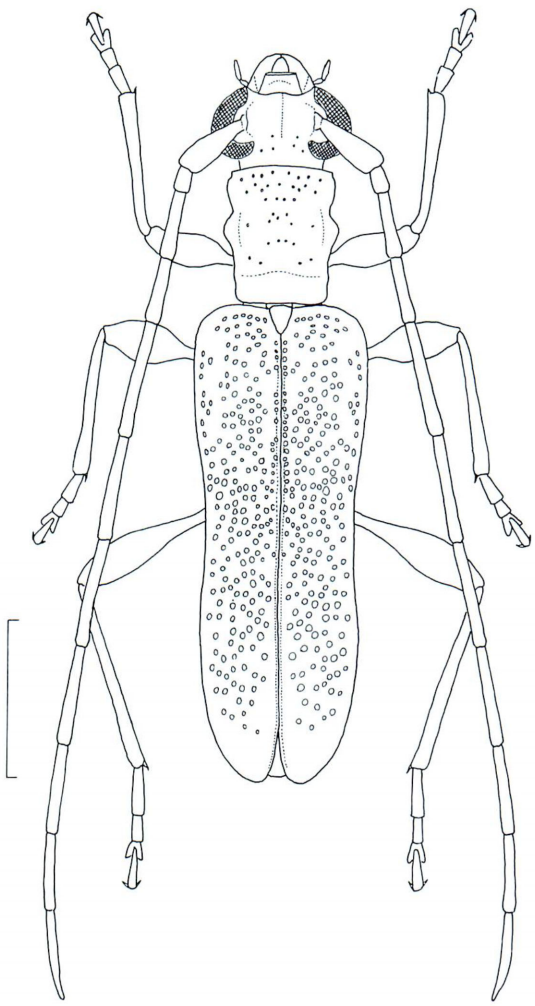

Fig. 1. *Obrium semiformosanum abirui* subsp. nov. Scale 1 mm.

less prominent humeri, nearly parallel in basal 3/11, weakly emarginate and weakly divergent to apical 3/11, then arcuately rounded to apices which are narrowly separately rounded; disc weakly convex, closely provided with rather large punctures, though smooth near bases and apices, clothed with medium-sized pale yellow hairs.

Ventral surface smooth in most part; prosternum partly pubescent in centre just before coxal cavities, with prosternal process invisible from above and approximate both coxae at the mid line; mesosternal process strongly compressed and narrowly pointed apicad; abdomen distinctly narrowed to apex, sparsely haired, with 3rd sternite twice the length of the 4th, 7th sternite truncate at apex.

Legs long and thin, with hind femur moderately compressed, weakly swollen in apical 1/3.

Male genital organ small and lightly sclerotized. Median lobe 1/5 the length of elytra, arcuate in profile, slightly elongate in apical part and moderately ample in basal part in dorsal view; ventral plate strongly produced apicad, arcuately emarginate at sides, with roundly truncate apex. Tegmen 3/4 the length of median lobe, broad; paramere straightly narrowed to apex which is truncate and provided with long setae.

Body length: 4.1 mm; width: 1.0 mm.

Holotype ♂, Atagoyama Hill, 125 m in alt., Shiraki-chô, Nagasaki-shi, Kyushu, SW Japan, 25–VI–1983, N. ABIRU leg. Preserved in the collection of the Department of Zoology, National Science Museum (Nat. Hist.), Tokyo.

Distribution. Kyushu, Southwest Japan.

Notes. Because of the differences in both the external and aedeagal morphology, and also of the wide geographical gap between northern Kyushu and Taiwan, this new subspecies might be regarded as a sibling species of *O. semiformosanum*.

A single male specimen examined was collected by a light trap set in a residential area located at the southeastern part of Nagasaki City. The locality is about a halfway up the hill called Atagoyama, on which is preserved by Atago Shrine an evergreen broadleaved forest predominated by *Castanopsis sieboldii*.

要　約

新里達也・高桑正敏：ニセタカサゴアメイロカミキリの九州北西部からの記録．—— 長崎市郊外で1983年に採集され，すでに阿比留・今坂(1983)により種名未確定のまま記録されている，ムナミゾアメイロカミキリ属の種を検した結果，台湾から記録されているニセタカサゴアメイロカミキリと同一種であることが判明した．なお，この個体は台湾産のものと比較すると，体長がはるかに大きく，上翅はより長く，その背面は大きく密に点刻され，その両側が明瞭にえぐられるほか，雄交尾器中央片の形態が異なる．本論文では，この長崎産の個体にもとづいて詳細な形態記載を行なうとともに，台湾の基亜種とは，地理的・形態的に区別できる集団に属するものとみなし，ナガサキアメイロカミキリ *O. semiformosanum abirui* subsp. nov. という新名を与えた．

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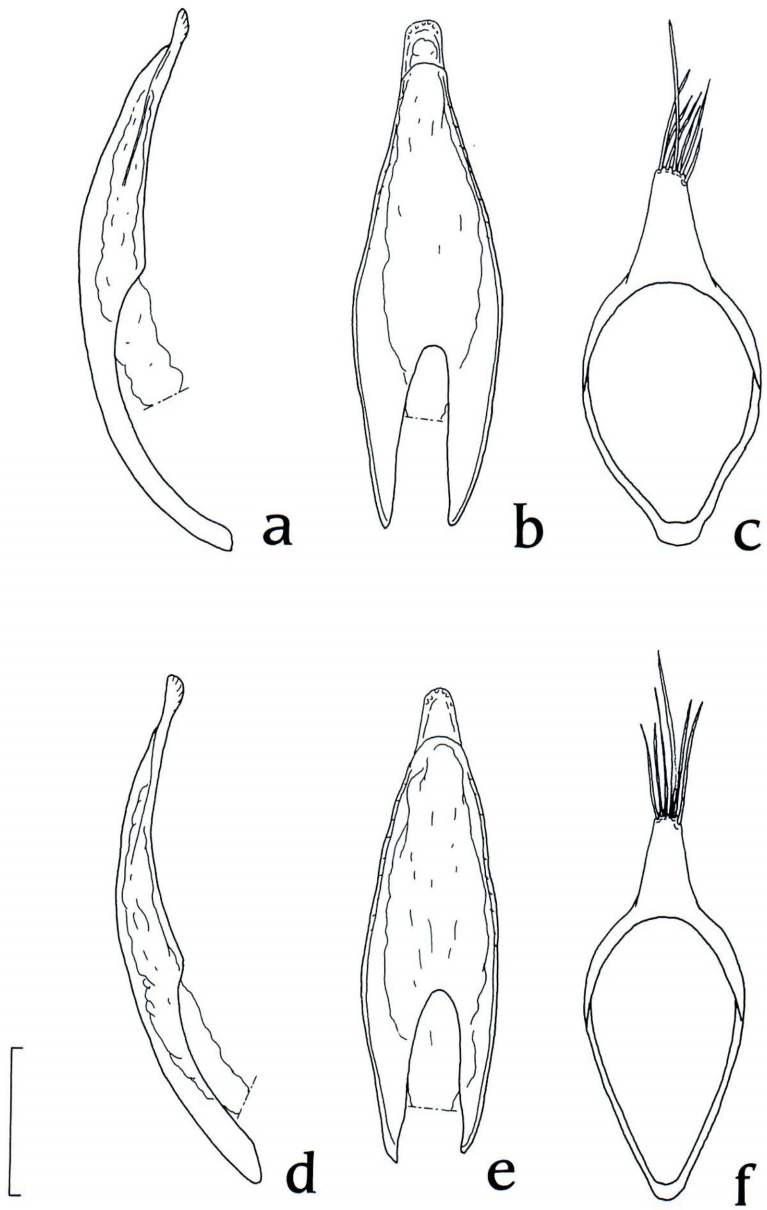

Fig. 2. Male genital organ of *Obrium semiformosanum* subspp.; a–c, *O. s. abirui* subsp. nov.; d–f, *O. s. semiformosanum* HAYASHI. —— a, d, Median lobe in lateral view; b, e, ditto in dorsal view; c, f, tegmen in dorsal view. Scale: 0.2 mm.

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Elytra, Tokyo, **24** (1): 146, May 15, 1996

A New Replacement Name for *Gabrius multipunctatus* SHIBATA (Coleoptera, Staphylinidae)

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Dr. Harald SCHILLHAMMER kindly informed me that the name *Gabrius multipunctatus* SHIBATA, 1991, is preoccupied by *Gabrius multipunctatus* (BLATCHLEY, 1910). BLATCHLEY described his *multipunctatus* in *Philonthus*, which is now in *Gabrius* and is a junior synonym of *G. ovaliceps* (FALL). I am greatly indebted to Dr. Harald SCHILLHAMMER of the Naturhistorisches Museum Wien for his kindness.

Gabrius schillhammeri SHIBATA, nom. nov.

Gabrius multipunctatus SHIBATA, 1991, Elytra, Tokyo, **19**: 88.
Nec *Philonthus multipunctatus* BLATCHLEY, 1910, Illustr. descript. Cat. Coleopt. Indiana, Indianapolis, pp. 387, 389.

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Elytra, Tokyo, **24** (1): 147–158, May 15, 1996

Taxonomic Notes on the Molorchine Beetles (Coleoptera, Cerambycidae) from Northern Vietnam, with Descriptions of Two New Taxa[1)]

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Abstract Three cerambycid beetles of the tribe Molorchini mainly collected by the 1995 Expedition to northern Vietnam made by the National Science Museum, Tokyo, are dealt with. *Epania ruficollis* PIC is supplementary redescribed on the basis of the Vietnamese specimens and is regarded as a senior synonym of *E. cyanea* GRESSITT et RONDON. *Epania vietnamica* sp. nov. and *Glaphyra yui masatakai* subsp. nov. are newly described.

In the spring of 1995, the junior author had an opportunity to investigate the cerambycid fauna of northern Vietnam as a member of an entomological expedition made by the National Science Museum, Tokyo, under the leadership of Dr. Shun-Ichi UÉNO. During the field survey, a short series of molorchine species belonging to the genera *Epania* and *Glaphyra* were collected by the members of the expedition. On the other hand, the senior author obtained an *Epania* species by the private collecting trip to northern Vietnam with his friends in the spring of 1994. After a careful study, the authors have come to the conclusion that these specimens are classified into three species, one of which is *Epania ruficollis* PIC previously known only from Laos, and the other two are a new species of *Epania* and a new subspecies of *Glaphyra yui*. In the present paper, the authors are going to introduce them into science.

Before going further, the authors wish to express their deep gratitude to the

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The abbreviations used herein are the same as those explained in previous papers of the senior author, except the followings: CBM –Natural History Museum and Institute, Chiba, NSMT – National Science Museum (Nat. Hist.), Tokyo, TN – T. NIISATO collection.

Epania ruficollis PIC

(Figs. 1 a–b, 2)

Epania ruficollis PIC, 1922, Mél. Exot.-Ent., **36**, p. 22; type area: Laos.
Epania (s. str.) *ruficollis*: GRESSITT & RONDON, 1970, Pacif. Ins. Mon., **24**, p. 116, fig. 21–i.
Epania (s. str.) *cyanea*: GRESSITT & RONDON, 1970, Pacif. Ins. Mon., **24**, p. 116, fig. 21–h. *Syn. nov.*

Medium-sized species of bluish black body, with black bristles on tibiae and femora. Colour black, somewhat shiny, with antennae black and dull except for reddish orange scape and 2nd segment, elytra steely blue, markedly shiny, the peduncles of hind femora pale yellow. Hairs long, erect and black in most parts; pronotum rather densely haired intermixed with pale ones at the basal sides, clothed with silvery white recumbent pubescence along apical and basal depressions; scutellum usually densely with silvery white pubescence; elytra rather sparsely haired, clothed with black pubescence near suture behind scutellum; abdominal sternites 3rd to 6th with silvery white pubescent patches at the sides, of which the 3rd one is medium in size, situated near posterior margin, 4th and 5th ones near the latero-basal margin are small, and 5th one at middle is small; legs densely clothed with long erect hairs, which are long and dense on the clavate part of hind femur and apical half of hind tibia forming black bristles.

Male. Head small though well convex, HW/PA 0.94; frons weakly convex, moderately provided with large punctures, genae shallow, less than 1/5 the depth of lower eye-lobes; eyes weakly prominent. Antennae rather short and stout, slightly longer than body, extending to the abdominal end at segment 10; scape short and distinctly clavate, 1.2 times as long as segment 3 and almost as long as segment 4; terminal segment weakly arcuate. Pronotum broad and relatively short, weakly sinuate at the sides, weakly contracted at apex and base; PL/PA 1.18, PB/PA 0.76, PW/EW 0.82, PL/EL 0.89; disc weakly convex in subsquarish form, rather finely reticulate, though the reticulation is finer towards the circumference, the apical collar smooth with a few shallow punctures. Scutellum quadrate with arcuate apex.

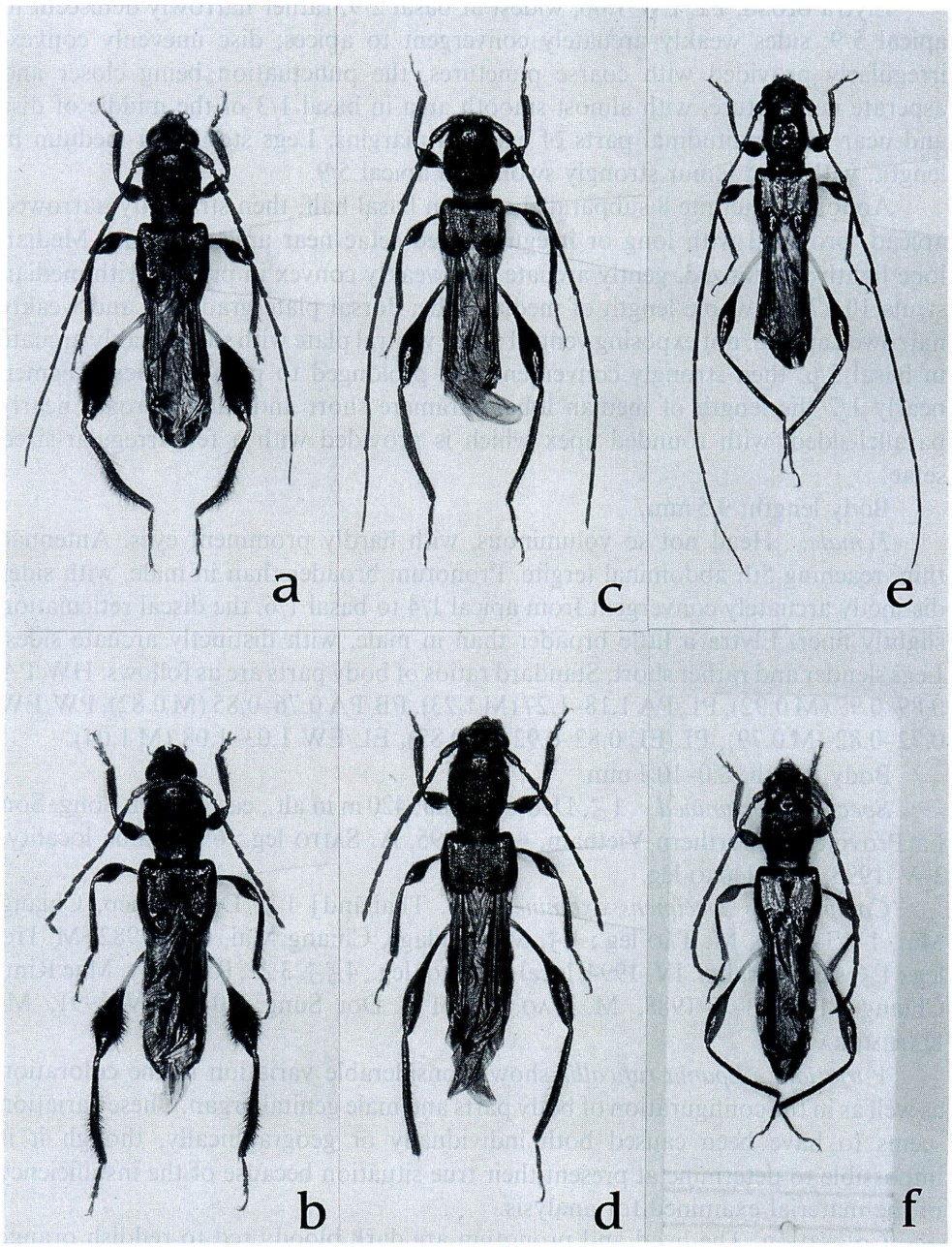

Fig. 1. —— a, *Epania ruficollis* PIC, ♂; b, ditto, ♀. —— c, *Epania vietnamica* sp. nov., ♂; d, ditto, ♀. —— e, *Glaphyra yui masatakai* subsp. nov., ♂; f, ditto, ♀.

Elytra broad, EL/EW 1.06, widest at basal 2/9, rather narrowly dehiscent in apical 5/9; sides weakly arcuately convergent to apices; disc unevenly convex, irregularly provided with coarse punctures, the punctuation being closer and asperate near suture, with almost smooth area in basal 1/3 of the middle of disc and near the longitudinal parts of external margins. Legs stout and medium in length, with hind femur strongly swollen in apical 5/9.

Abdominal tergite 8 subparallel-sided in basal half, then straightly narrowed apicad, provided with long or irregular-sized setae near apical margin. Median lobe lightly sclerotized, gently arcuate and weakly convex in profile, with median struts 10/17 the whole length of median lobe; dorsal plate gradually and weakly narrowed apicad, not exposing ventral plate; ventral plate with sides weakly arcuate in basal 5/6, then strongly convergent and prolonged to pointed apex. Tegmen nearly 1/2 the length of median lobe; paramere short and rather broad, nearly parallel-sided, with rounded apex which is provided with a few irregular-sized setae.

Body length: 9.5 mm.

Female. Head not so voluminous, with hardly prominent eyes. Antennae thin, reaching 5th abdominal tergite. Pronotum broader than in male, with sides distinctly arcuately convergent from apical 1/4 to basal 1/6, the discal reticulation slightly finer. Elytra a little broader than in male, with distinctly arcuate sides. Legs slender and rather short. Standard ratios of body parts are as follows: HW/PA 0.89–0.97 (M 0.92), PL/PA 1.18–1.27 (M 1.23), PB/PA 0.76–0.85 (M 0.82), PW/EW 0.72–0.82 (M 0.79), PL/EL 0.82–0.92 (M 0.87), EL/EW 1.03–1.08 (M 1.04).

Body length: 8.0–10.1 mm.

Specimens examined. 1♂, Deo Cao Pha, 420 m in alt., east of Ban Song, Son La Province of northern Vietnam, 4–V–1995, A. SAITO leg.; 6♀♀, same locality, 3–V–1995, S.-I. UÉNO leg.

Comparative specimens examined. [N. Thailand] 1♂, Doi Suthep, Chiang Mai, 1–VI–1980, M. TAO leg.; 1♂, Meo Village, Chiang Mai, 6–V–1982, M. ITO leg.; 1♂, same locality, IV–1994, local collector leg.; 4♂♂, 3♀♀, Rim Doy, Mae Rim, Chiang Mai, 13–V–1988, M. TAO leg.; 1♂, Doi Sung, 10～17–V–1991, M. KAMIMURA leg.

Variation. *Epania ruficollis* shows considerable variation in the coloration as well as in the configuration of body parts and male genital organ. These variation seems to have been caused both individually or geographically, though it is impossible to determine at present their true situation because of the insufficiency of the material examined for analysis.

Coloration: The head and pronotum are dark bloody red to reddish orange in the typical form though sometimes black; always black in the Vietnamese specimens. The elytra are steely blue, sometimes reddish along the external margins. The hind wing is brownish dark gray with paler apical parts in the typical form; entirely brownish dark gray in the Vietnamese. The hind femur is usually bicoloured

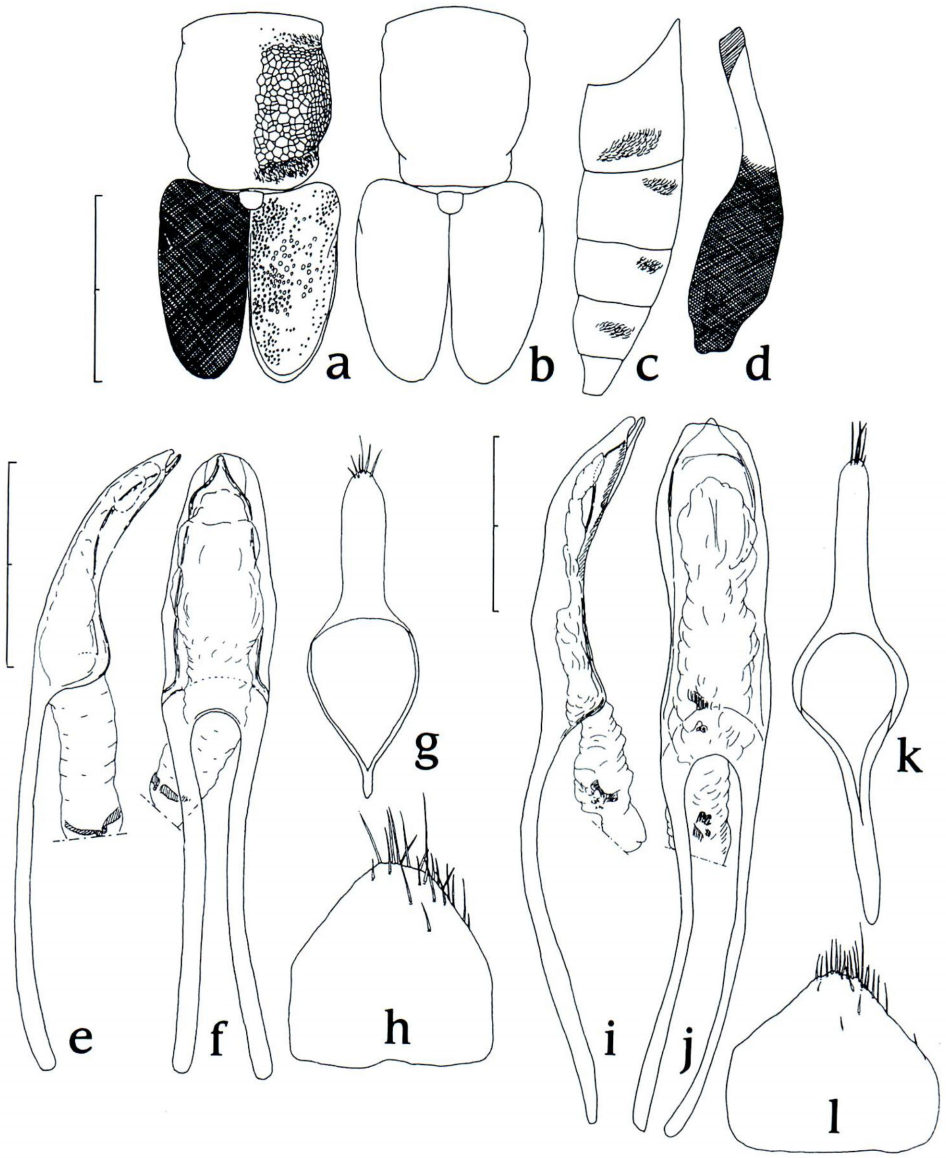

Fig. 2. *Epania ruficollis* PIC; a–h, from the Deo Cao Pha of northern Vietnam; i–l, from Chiang Mai of northern Thailand. —— a, ♂ Pronotum and elytra in dorsal view, showing the arrangement of punctures and pubescence; b, ditto, outline, ♀; c, ♂ abdomen in lateral view, showing the arrangement of pubescence; d, ♂ hind femur in ventral view; e, i, median lobe in lateral view; f, j, ditto in dorsal view; g, k, tegmen in dorsal view; h, l, abdominal tergite 8 in dorsal view. Scale: 2 mm for Figs. a–d, 0.5 mm for Figs. e–l.

with pale yellow peduncular parts, sometimes entirely black.

External structure: The length and lateral lines of pronotum of both male and female usually vary according to the body size of individuals. The antennae in the male usually exceed the body at the 9th segment, sometimes at the 10th segment. The hind femur is usually strongly clavate in apical 1/2 to 3/5, though more or less weaker in a few individuals.

Male genital organ: Configuration of the male genital organ shows a slight morphocline, though the two extremes are as follows: Median lobe with apical part of ventral plate either prolonged or obtusely pointed. Paramere either short and rather broad or fairly elongate.

Distribution. Northern Thailand (new record), Laos, Northern Vietnam (new record).

Notes. As was noted above, this is a variable species both in the external and genitalic features.

The Vietnamese specimens examined were collected from a freshly cut trunk of an unknown broadleaved tree at the collecting site, a large doline of the Deo Cao Pha. According to Dr. S.-I. UÉNO, the trunk was about 40 cm in diameter, and the six female specimens always came flying to the lateral sides of the trunk.

Epania vietnamica NIISATO et A. SAITO, sp. nov.

(Figs. 1 c–d, 3)

Closely related to *E. septemtrionalis* HAYASHI (1950, p. 3, fig.1) from the Japanese Islands and the Korean Peninsula in the unicoloured black body, the characteristic configuration of the pronotum and the arrangement of abdominal pubescence. Readily distinguished from the latter species by the finer reticulation on the pronotum, the elytra with faint bluish tinge and the well developed pubescent bands on the abdominal sternites.

Body medium-sized, relatively robust, with long and stout appendages. Colour black, with dark chestnut brown appendages, shiny throughout except for dull antennal segments 3–11, with faint bluish tinge on elytra; mouth parts slightly more reddish, with dark yellowish brown palpi and labrum.

Male. Head rather small and not so voluminous, distinctly narrower than the maximum width of pronotum, HW/PA 0.92–0.95, HW/PW 0.82–0.87, coarsely and deeply punctured, sparsely clothed with brownish hairs; frons gently raised, with a median longitudinal groove and lateral arcuate grooves shallow, also with arcuate anterior margin, moderately provided with deep punctures, FL/FB 0.86–0.88 (M 0.87); clypeus nearly 3/10 as long as base, with strongly arcuate apical margin; genae 1/3 the depth of lower eye-lobes; eyes rather weakly prominent. Antennae long and stout, 1.39–1.53 times as long as body, clothed with dense minute pubescence on segments 3–11, and also with brownish erect hairs on segments 1–2 and the underside of segments 3–6 (or 3–7); scape stout, coarsely

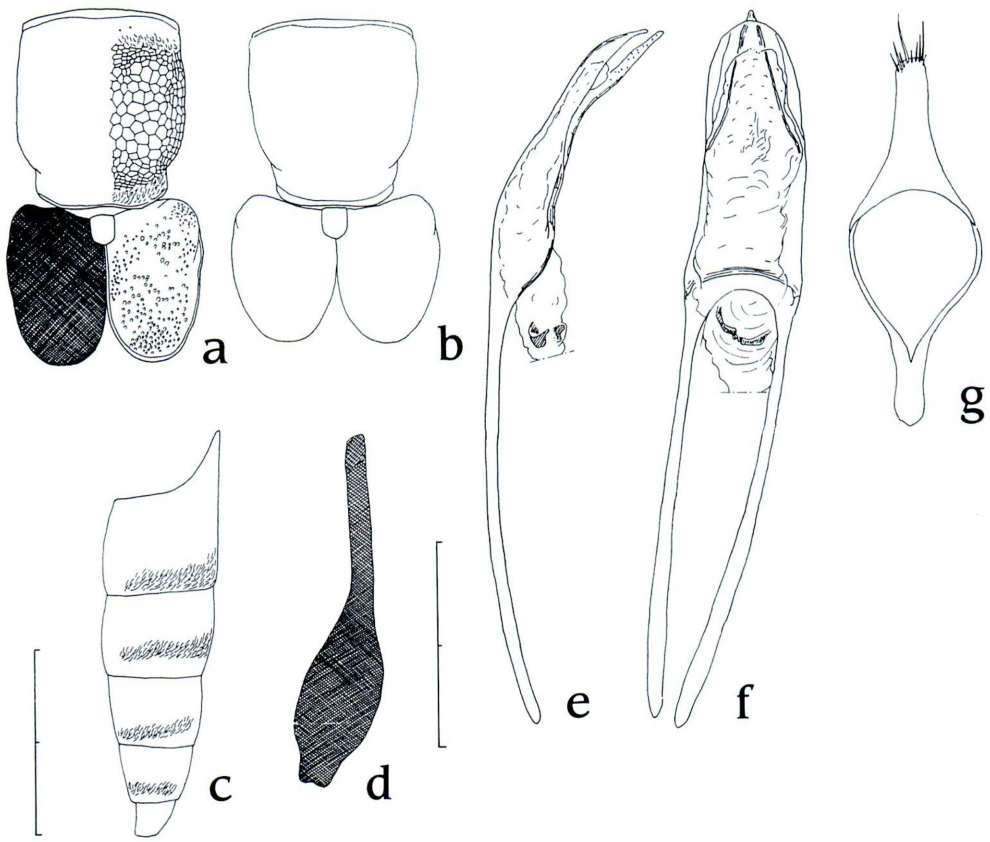

Fig. 3. *Epania vietnamica* sp. nov., from Mt. Tam Dao of northern Vietnam. —— a, ♂ Pronotum and elytra in dorsal view, showing the arrangement of punctures and pubescence; b, ditto, outline, ♀; c, ♂ abdomen in lateral view, showing the arrangement of pubescence; d, ♂ hind femur in ventral view; e, median lobe in lateral view; f, ditto in dorsal view; g, tegmen in dorsal view. Scale: 2 mm for Figs. a–d, 0.5 mm for Figs. e–g.

punctured, nearly 1 1/3 the length of segment 3, segment 3 4/5 the length of segment 4 and 3/5 the length of segment 5, segments 5–7 slightly increasing in length apicad, segments 7–9 nearly equal in length, terminal segment gently arcuate and simply pointed apicad, nearly 2/3 the length of the preceding.

Pronotum large, strongly constricted near base and hardly contracted to apex; PL/PA 1.18–1.34, PB/PA 0.74–0.85, PW/EW 0.83–0.90, PL/EL 1.18–1.28; sides nearly parallel near apex, gently divergent (smaller specimen) or parallel (larger specimen) towards the middle, then arcuately convergent to basal 1/6; base gently bisinuate; disc strongly convex though somewhat flattened above, moderately impressed near apical margin, strongly so in basal 1/6, provided with reticulation in 16–18 irregular longitudinal rows and becoming smaller towards the circum-

ference, moderately clothed with long erect pale hairs, and partly with dense silvery white pubescence just behind apex and along basal margin. Scutellum subquadrate, clothed with dense silvery white pubescence.

Elytra small and short, hardly reaching abdominal tergite 1, distinctly exposing the sides of metathorax, arcuately dehiscent in apical 1/3–1/2; sides moderately prominent at humeri, somewhat arcuately convergent to apices which are broadly rounded; disc moderately convex, longitudinally impressed along mid-line, arcuately and transversely so just before the apical swellings, and circularly so near scutellum, coarsely and somewhat rugosely punctured, rather densely clothed with pale brown hairs.

Prosternum weakly raised near middle, provided with coarse punctures, rather densely clothed with long erect pale hairs; prosternal process narrow, strongly narrowed towards apex, distinctly vertical, reaching the level of apical 1/3 of fore coxae; furcasternum moderately developed, almost reaching the level of hind margins of epipleura, with a short median anterior process. Mesosternum shagreened, densely clothed with pale hairs. Metathorax large, sparsely punctured, clothed with sparse pale hairs, partly with dense silvery white pubescence along hind margin of metasternum and metepisternum. Abdomen moderately long, sparsely punctured, clothed with long erect pale hairs, and also with a pair of transverse dense silvery white pubescent maculations along posterior margins of sternite 3 and near posterior margins of sternites 4–6.

Legs fairly long; hind legs 1.1 times as long as body, with femur strongly clavate in apical half, tibia weakly sinuate, and the 1st tarsal segment a little longer than the following two segments combined.

Male genital organ small and rather weakly sclerotized. Median lobe relatively slender, gently arcuate and hardly convex in profile, with median struts 3/5 the whole length of median lobe; dorsal plate arcuately rounded on apical margin, slightly exposing the apex of ventral plate; ventral plate strongly narrowed apicad, with bluntly pointed extremity. Tegmen nearly 1/2 the length of median lobe; paramere rather broad, arcuately narrowed to the middle and then subparallel to apex, with apical margin subtruncate, provided with irregular-sized setae.

Body length 9.5–11.0 mm.

Female. Antennae 0.57–0.65 times as long as body, reaching the apical margin of abdominal tergite 4, with terminal segment bluntly pointed. Pronotum rather distinctly divergent apicad, with discal reticulation relatively small. Legs shorter and thinner than those of male; hind leg a little shorter than body, with weakly compressed femoral club.

Body length 9.5–10.0 mm.

Type series. Holotype ♂ [NSMT], Mt. Tam Dao, 1,250 m in alt., Vinh Phu Province of northern Vietnam, 2～5–V–1994, K. ISHIDA leg. Allotype ♀ [NSMT], same data as the holotype. Paratypes: 1♀ [TN], same locality and date as the holotype, H. KARUBE leg.; 1♂ [CBM–ZI 33969], same locality as the holotype,

21–V–1995, A. SAITO leg.

Distribution. Northern Vietnam.

Notes. *Epania vietnamica* has so far been known only from the summit of Mt. Tam Dao. All the specimens examined were collected from the blossum of *Pasania* sp. growing at the edge of the peak. At the time of collecting, the weather was very fine and the effective temperature seemed very high.

Glaphyra yui masatakai NIISATO et A. SAITO, subsp. nov.

(Figs. 1 e–f, 4)

This new subspecies is distinguished from the nominotypical subspecies from Taiwan by the broad male pronotum which has almost arcuate sides and a pair of discal swellings located anterior to the middle, the shorter elytra with gently slanting anterior margin of the apical swellings, and different configuration of male genital organ.

Male. Colour black with slightly brownish antennae and legs; each elytron decorated with a slightly oblique pale yellow maculation from just behind base to apical 3/8 and reaching sutural margin; peduncles of mid and hind femora pale yellow. Hairs and pubescence silvery white in most parts; antennae densely clothed with minute pubescence on segments 5–11; pronotum rather densely with long erect hairs, provided with dense pubescent transverse bands near apex and base; scutellum densely pubescent; hairs on elytra long though sparse; sides of meso- and metathoraces, hind margin of metasternum, sides of middle portion of each of abdominal sternites 3–6 densely pubescent.

Head relatively voluminous, with moderately prominent eyes; HW/PA 1.36, HW/PW 1.00; frons gently convex, scattered with large punctures; vertex depressed at middle, rugose at sides. Antennae long and thin, 1.7 times as long as body; scape short and thick, 7/10 the length of segment 3, scattered with coarse and shallow punctures; segment 3 9/10 the length of segment 4; terminal segment very thin, weakly sinuate in apical 3/8. Pronotum rather large, weakly contracted to apex and base, PL/PA 1.51, PB/PA 1.04, PW/EW 0.78, PL/EL 0.83; sides gently arcuately divergent to a pair of small tubercles at basal 2/5, then arcuately convergent to basal 1/5; disc well convex, provided with coarse and irregular-sized punctures on middle though a pair of large oblique swellings located anterior to the middle and an oblong one at the centre are smooth, rugosely punctured on apical and basal depressions. Elytra wide, moderate in length, strongly narrowed to apices, widest at basal 1/5, sinuately dehiscent in apical 4/9, EL/EW 1.11; sides with humeri distinctly prominent latero-anteriorly, arcuate at basal 3/10, then almost straightly convergent to apices which are narrowly rounded; disc convex, depressed near suture just behind scutellum, obliquely concave near middle, with moderate apical swellings whose anterior margins gently slant inwards, sparsely provided with large shallow punctures. Metasternum and abdomen very

sparsely punctured. Legs slender and rather long, with hind femur rather weakly clavate in apical 3/5.

Abdominal tergite 8 broad trapezoidal, broadly truncate at apical margin, densely provided with setae at apical margin and thinly so on dorsum. Median lobe rather weakly sclerotized, weakly arcuate and gently convex in profile, with rather broad apical lobe; median struts short, a little less than 2/3 the whole length of median lobe; dorsal plate weakly narrowed to apex which is broadly subtruncate; ventral plate in profile moderately arcuate and bluntly pointed at apex, in dorsal view gently and arcuately emarginate at sides, with subtruncate apex. Tegmen small and slender, nearly 2/5 the length of median lobe; paramere slender, arcuately narrowed to bluntly pointed apex though subparallel-sided in apical half, provided with four short setae at the sides of apical portion.

Body length: 10.0 mm.

Female. Colour black with reddish brown antennae and legs; elytron brownish black, decorated with a large pale yellow maculation from just behind base to apical 3/8 and nearly reaching sutural margin, produced anteriorly and emarginate at basal margin; peduncle of hind femora pale yellow, hind tibiae and tarsi blackish brown. Pubescence almost the same as that of male, though denser and pale golden yellow in colour for the most parts.

Head with weakly prominent eyes, closely punctured on frons. Antennae long, almost reaching abdominal tergite 7. Pronotum hardly contracted to apex, widest at basal 2/5, sides nearly parallel in basal 3/5, then arcuately convergent to the basal constriction. Elytra with hardly prominent humeri, very sparsely punctured. Legs slenderer than in male, with hind femora clavate in apical 2/3. Standard ratios of body parts are as follows: HW/PA 1.05, HW/PW 0.94, PL/PA 1.36, PB/PA 0.95, PW/EW 0.83, PL/EL 0.95, EL/EW 1.01.

Body length: 8.8 mm.

Type series. Holotype ♂ [NSMT], Hoang Lien Son Mts., northern ridge of Mt. Phang Si Pang, 1,950 m in alt., Lai Chau Province of northern Vietnam, 17–V–1995, A. SAITO leg. Allotype ♀ [NSMT], same locality and date, M. SATÔ leg.

Distribution. Northern Vietnam.

Comparative specimens examined. [*Glaphyra yui yui* HAYASHI]: 2♂♂, 2♀♀, near Mt. Lalashan, Taoyuan–Taipei Hsien, 8, 9, 12–V–1978, T. SHIMOMURA leg.; 1♀, Piluchi, 2,300 m in alt., Nantou Hsien, 26–VI–1982; 1♂, near Meifeng, Jenai, Nantou Hsien, 3–VI–1976, T. SHIMOMURA leg.; 1♂, Nanshanchi, Jenai, Nantou Hsien, 7–IV–1978, T. SHIMOMURA leg.; 2♂♂, Mt. Chuyunshan, near Liukuei, Kaohsiung Hsien, V–1981, W. CHEN leg.

Notes. At first sight, this new subspecies seems hardly distinguishable from the nominotypical subspecies occurring in the mountain area of Taiwan. However, it is readily distinguished from the latter by the broad male pronotum with different pattern of discal swellings and the anterior margin of apical swellings of elytra

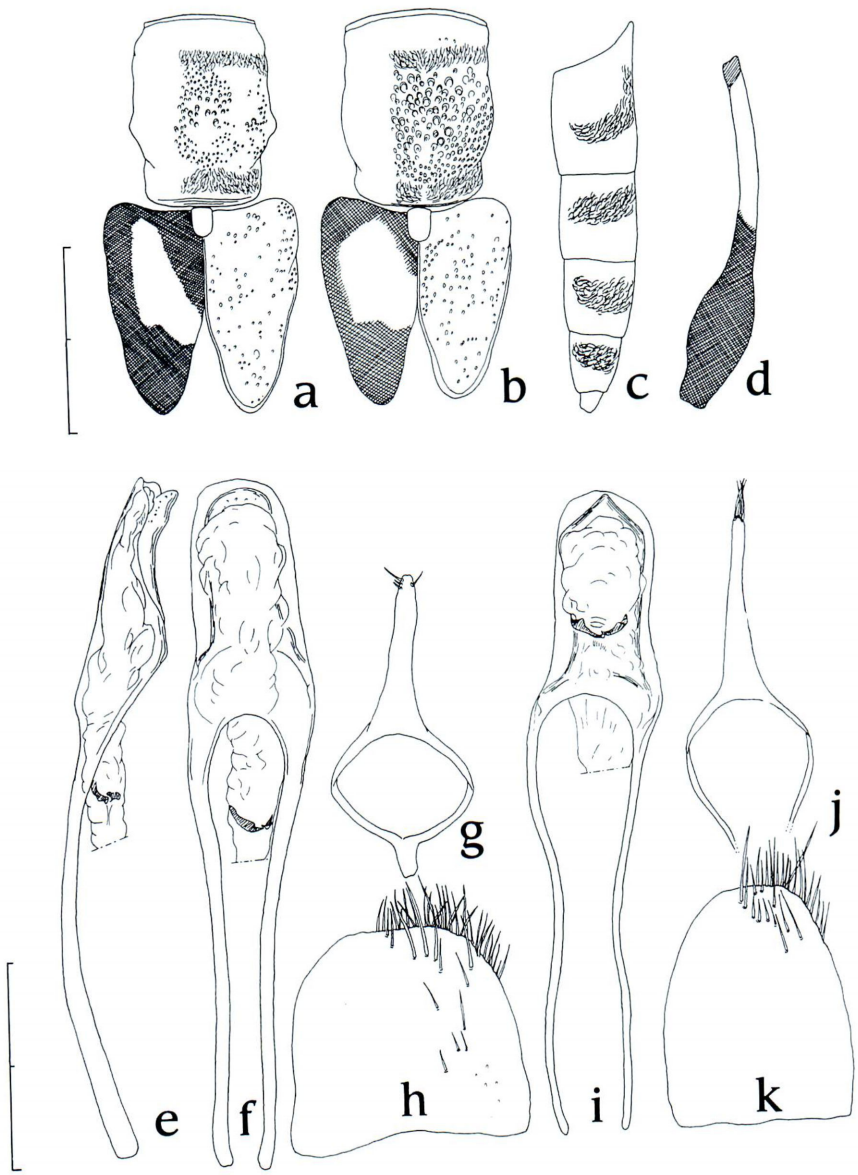

Fig. 4. *Glaphyra yui* subspp. —— a–h, *G. yui masatakai* subsp. nov.; i–k, *G. yui yui* HAYASHI; a, ♂ pronotum and elytra in dorsal view, showing the arrangement of punctures and pubescence; b, ditto, outline, ♀; c, ♂ abdomen in lateral view, showing the arrangement of pubescence; d, ♂ hind femur in ventral view; e, median lobe in lateral view; f, i, ditto in dorsal view; g, j, tegmen in dorsal view; h, k, abdominal tergite 8 in dorsal view. Scale: 2 mm for Figs. a–d, 0.5 mm for Figs. e–k.

gently slanting. The male genital organ of the nominotypical subspecies shows a remarkably difference from that of *G. yui masatakai* in the tongue-shaped 8th abdominal tergite, the median lobe with triangular apical part and long thin median struts, and also a very thin paramere with rather long apical setae.

A pair of the specimens examined were collected on the blossoms of *Berchemia floribunda* (WALL.) BRONGN. (Rhamnaceae).

要　約

新里達也・斉藤明子：北ベトナム産ヒゲナガコバネカミキリ類の分類学的知見．—— 1995年春に行われた国立科学博物館による北ベトナムの学術調査と，その前年に行われた新里の私的な調査旅行によりすでに得られていた材料とを研究した結果，1新種および1新亜種を含む次の3種のヒゲナガコバネカミキリ類を認めた．1) *Epania ruficollis* PIC：インドシナに比較的広く分布する種で，体形および色彩の個体変異が著しい．北ベトナムで得られた個体はすべて前胸背板が黒化する型であるが，これはGRESSITT & RONDON (1970)により*Epania cyanea*という名称で記載された種に相当する．ここでは北ベトナムの標本をもとにして必要な再記載を行ったうえで，タイ北部材料をあわせて比較検討し，*E. cyanea*を*E. ruficollis*の異名として扱った．2) *Epania vietnamica* sp. nov.：黒色で，前胸背板は前方にほとんど狭まらず，前・後縁付近に白銀色の微毛帯をもつ．もっとも類縁の近い種は，日本列島および朝鮮半島に分布するクロサワヒメコバネカミキリ*E. septemtrionalis*である．3) *Glaphyra yui masatakai* subsp. nov.：台湾の山岳地帯に分布する基亜種とは前胸の外形および背面の無点刻部分の位置，上翅の先端隆起の形などで区別されるほか，雄交尾器に著しい相違が認められる．

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A New Cerambycid Beetle of the Genus *Rosalia* (Coleoptera, Cerambycidae) from Sumatera

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Abstract A new cerambycid beetle, *Rosalia splendens*, is described from Sumatera, Indonesia. It seems to be a close relative of *R. oberthuri* from Borneo.

Only a single species belonging to the genus *Rosalia* has hitherto been known from Sumatera. It has been provisionally determined as *Rosalia* (*Eurybatus*) *novempunctata* which was originally described from East Java and belongs to the group of *R. formosana*. Recently, I had an opportunity to examine an additional *Rosalia* species from Sumatera. Though similar to *R. novempunctata* in the dorsal maculation, this species no doubt belongs to the group of *R. oberthuri* from Borneo because of such common characters as very thick antennal segments 3rd and 4th and the entirely bright orange body beneath including coxae. After a careful examination, the unknown species was proved new to science, and I am going to describe it in this paper.

Before going further, I wish to express my hearty thanks to Mr. Masatoshi TAKAKUWA of the Kanagawa Prefectural Museum of Natural History for his constant guidance, and to Mr. Tatsuya NIISATO of Bioindicator Co., Ltd., for his kind reading the original manuscript of this paper. Thanks are also due to Mr. Hiroshi FUJITA, Miss Sanet L. DAVIS of the General Library, the Natural History Museum, London, and Ms. Sachiyo KARUBE for their kind help in materials or literature.

Rosalia* (*Eurybatus*) *splendens sp. nov.

(Figs. 1–2)

Male. Body broad and rather short, depressed, with sides weakly narrowed posteriad. Colour orange though brighter beneath, black on head, appendages and last abdominal segment; pronotum maculated with three small black spots at medio-apical part and sides of the middle; scutellum except for the basal sides black; elytron with four black maculations, of which two small spots are on basal 1/5 of side and just before basal 1/5 of disc, a rather large oblique spot near the

middle, and also a transverse band in apical 1/10; hind wings orange, with black apical 1/3.

Head relatively small, lustrous, densely and rather finely punctate on dorsum, densely clothed with erect black pubescence, with a triangular small orange pubescent spot at occiput; vertex strongly raised, provided with a median longitudinal furrow extending to occiput; gula scabrously punctate at the upper half though rugosely so at the lower half; clypeus almost flattened, with weakly emarginate apical margin; mandibles broad beak-shaped; eyes moderate in size. Antennae very thick in basal four segments, exceeding elytral apex at the middle of 7th segment, relative lengths of segments as follows: 5.8 : 1 : 11.1 : 7.7 : 8.2 : 7.3 : 6.7 : 6.7 : 6.4 : 6.0 : 11.0; scape clavate, nitid, deeply and rather densely punctate; pedicel robust, wider than long; 3rd and 4th remarkably robust, densely granulose; 3rd to 6th at each apex provided with an oblique inner spine, of which the one on the 3rd is stout and long, a little less than 1/3 the length of segment, that of the 4th relatively long and nearly straight, that of the 5th small and hooked, and that of the 6th vestigal.

Pronotum wide and globose, about 1.2 times as wide as long, widest behind

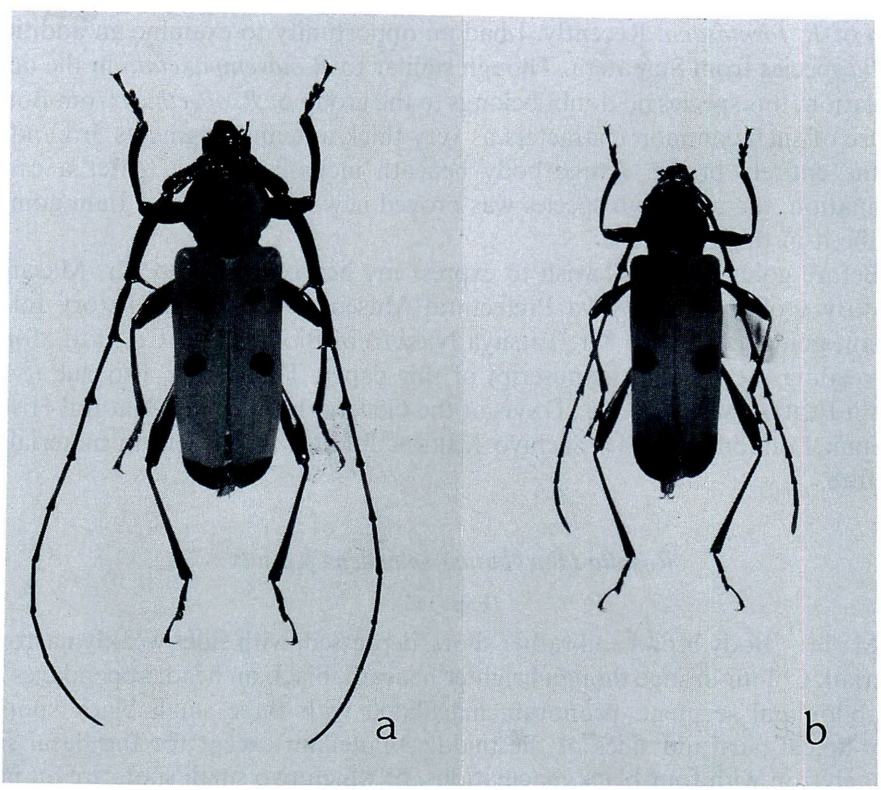

Fig. 1. *Rosalia* (*Eurybatus*) *splendens* sp. nov. from W. Sumatera; a, holotype ♂; b, paratype ♀.

middle, strongly narrowed just before base, and provided with a pair of small tubercles at middle of sides; disc flattened, sparsely clothed with long erect hairs near base and apex. Scutellum trapezoidal, slightly concave at middle, glabrous. Elytra about 2.1 times as long as the humeral width; sides with somewhat produced humeri, gradually convergent to apices which are obliquely and arcuately truncate with narrowly rounded inner angle. Prosternal process spatulate, not emarginate at sides. Mesosternal process rather broad, deeply and longitudinally concave along the midline, nearly parallel-sided, and abruptly becoming narrower towards forked apex. Abdomen distinctly and arcuately attenuate apicad, with a pair of shallow concavities at sides of sternites 3rd to 7th; 7th sternite broad and semicircular; pygidium faintly arcuate with rounded corners.

Legs stout, densely clothed with pubescence; tibiae distinctly dilated apicad; femora stout and compressed, abruptly thickened at apices.

Male genitalia rather slender. Median lobe rather thin in profile; ventral plate abruptly deflexed near apex and acutely pointed at the tip. Tegmen gently bent ventrad near middle; paramere broad and long, narrowly rounded at the apices.

Female. Colour as in male. Head and prothorax smaller. Antennae slender, exceeding elytral apices at 9th segment; segments 3rd to 8th each provided with obliquely hooked inner spine which gradually becomes smaller towards 8th segment. Elytra 2.2–2.4 times as long as wide. Prosternal process broad and nearly parallel-sided. Mesosternal process broad, rather strongly narrowed

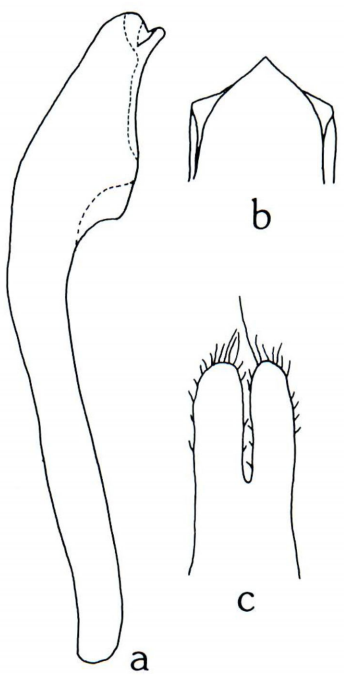

Fig. 2. Male genitalia of *Rosalia* (*Eurybatus*) *splendens* sp. nov.; a, median lobe in lateral view; b, ditto, apical part in ventral view; c, paramere in ventral view.

apicad, longitudinally grooved along midline, and semicircularly emarginate at apex. Legs somewhat short.

Length: 30.3 mm in ♂, 26.9–24.4 mm in ♀; width: 9.7 mm in ♂, 9.7–7.1 mm in ♀.

Type series. Holotype ♂, Mt. Sago, near Padang, W. Sumatera, X–1992, collected by a native (deposited in the Kanagawa Prefectural Mus. Nat. Hist.). Paratypes: 1♀, Payakumbun, W. Sumatera, V–1995, collected by a native; 1♀, Bera Stagi, E. Sumatera, V–1992, collected by a native.

Distribution. Sumatera, Indonesia.

Notes. This new species is closely related to *Rosalia* (*Eurybatus*) *oberthuri* described from Borneo, but differs from the latter in the following points: 1) body robust and broad, 2) legs shorter and broader, 3) elytra not so tapered towards apices, 4) elytral apices obliquely and arcuately truncate with narrowly rounded inner angles, 5) 4th antennal segment slender, 6) spine of 3rd antennal segment stouter, 7) mesosternal process broader though strongly narrowed near apex, 8) median lobe with ventral plate abruptly deflexed near apex.

要　約

苅部治紀：スマトラ島産ベニボシカミキリの1新種．—— スマトラのベニボシカミキリ属は，これまで*R. novempunctata*と考えられる1種が知られていただけであったが，今回スマトラ北部から本属の別系統の種の標本がもたらされた．この種は触角第3・4節が非常に膨大すること，体下面が腹部末端を除き基節まで全面オレンジ色を呈することで，他のベニボシカミキリ類から容易に区別できる．このような特徴をもつ種としては，これまでボルネオに産する*R. oberthuri* 1種が知られていたが，これとは明らかに区別できるので，本種を新種として命名記載した．

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Elytra, Tokyo, **24** (1): 163–168, May 15, 1996

The Anthribid Genus *Platystomos* (Coleoptera, Anthribidae) from Thailand[1)]

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Abstract Four species of the anthribid genus *Platystomos* are recorded from Thailand. Two of them are newly described from North Thailand, under the names of *Platystomos albisignatus* and *P. thainus*. Of the remaining two, *P. wallacei malaicus* (JORDAN, 1904) and *P. frontalis* (JORDAN, 1904) are newly recorded from Thailand. The genus *Platystomos* is a new record from Thailand.

From April 1993 to March 1994, I was able to make several long collecting trips in the territory of Thailand through the courtesy of the Study Leave System for Teachers of Chuo University High Schools. During the period, I collected three species of the genus *Platystomos*. One is *P. wallacei malaicus* (JORDAN, 1904) described from Borneo, Sumatra and Malacca, another is *P. frontalis* (JORDAN, 1904) from Sumatra. Both of them have not been recorded from Thailand up to the present. The other is a peculiar species having a large white elytral marking, and seems to be new to science after a careful examination.

Through the courtesy of Dr. W. SUZUKI and Mr. K. SAKAI of Tokyo, I also had an opportunity to examine another species of *Platystomos* collected by themselves in northern Thailand. It resembles *P. asteromaculatus* (ODA, 1978) known from the Nansei Islands, the southern part of Japan, but can be distinguished from the latter by the differently formed markings on the dorsal surface of body including the pygidium, and so on.

Before going further, I wish to express my sincere gratitude to Professor Y. WATANABE of the Laboratory of Entomology, Tokyo University of Agriculture, and Professor K. MORIMOTO of the Entomological Laboratory, Kyushu University, for their constant guidance and encouragement. I am much indebted to Dr. S.-I. UÉNO of the National Science Museum (Nat. Hist.), Tokyo, for his constant guidance and for kindly reading the original manuscript of the present paper, and to Dr. W. SUZUKI and Mr. K. SAKAI of Tokyo, for their kindness in providing me with the specimens used in this research.

1) This study is supported in part by the Study Leave System for Teachers of Chuo University High Schools.

Platystomos wallacei malaicus (JORDAN, 1904)

Anthribus wallacei malaicus JORDAN, 1904, Novit. zool., **11**: 235 (Borneo, Sumatra, Malacca); 1913, Rec. Ind. Mus., **9**: 213 (Borneo); 1916, Tydschr. Ent., **59**: 161 (Sumatra). —— WOLFRUM, 1929, Coleopt. Cat., (102): 78 (Java, Sumatra, Borneo, Malakka).

Platystomos wallacei malaicus: JORDAN, 1942, Ent. mon. Mag., **78**: 190 (Borneo). —— WOLFRUM, 1953, Coleopt. Cat. Suppl., (102): 36 (Java, Sumatra, Borneo, Malakka).

Specimens examined. 1♂, 1♀, Ban Lamo, Trang, S. Thailand, 15～19–VI–1981, T. SENOH leg.; 2♂♂, 2♀♀, Nam Tok Pliw, Nakhon Si Thammarat, S. Thailand, 16～17–IX–1993, T. SENOH leg.; 2♂♂, 1♀, Nam Tok Pliw, Nakhon Si Thammarat, S. Thailand, 12～13–XII–1993, T. SENOH leg.; 1♂, 1♀, Khao Phanom, Krabi, S. Thailand, 4–XII–1993, T. SENOH leg.

Distribution. South Thailand (new record), Malakka, Sumatra, Java, Borneo.

Platystomos frontalis (JORDAN, 1904)

Anthribus frontalis JORDAN, 1904, Novit. zool., **11**: 235 (1♂, Sumatra). —— WOLFRUM, 1929, Coleopt. Cat., (102): 78 (Sumatra).

Platystomos frontalis: JORDAN, 1942, Ent. mon. Mag., **78**: 190 (Borneo). —— WOLFRUM, 1953, Coleopt. Cat. Suppl., (102): 35 (Sumatra, Borneo).

Specimen examined. 1♀, Mae Hong Son–Pangumapha, NW. Thailand, 19–V–1993, T. SENOH leg.

Distribution. Thailand (new record), Sumatra, Borneo.

Platystomos albisignatus SENOH, sp. nov.

(Fig. 1)

Length: 13–18 mm (from apical margin of rostrum to apices of elytra).

Female. Body relatively large, about 3 times as long as wide, including rostrum. Colour predominantly black, from 3rd to 6th segments of antennae, derm of tibial markings blackish brown. Pubescence relatively dense, brown, white and black; white on frons and 8th segments of antennae, and white hairs forming a V-shaped patch on anterior part of pronotum, a rhombic one on basal two-thirds of elytra, and a semicircular one on apical third of elytra. The rhombic elytral patch evidently connected with the semicircular one which is not covered with apical part of elytra and pygidium.

Head with a longitudinal keel between eyes, which is somewhat swollen in apical part; rostrum with three longitudinal keels in basal third, and with a deep fovea at base; basal width of rostrum about 1.4 times as wide as the shortest distance between eyes. Antennae short, hardly reaching the basal margin of elytra, scape globular, each segment of funicle shortened except for 3rd which is a little longer, 9th, 10th and 11th compactly jointed and forming an elongate club, 10th

almost square, 11th elongate triangular, proportions in length from 2nd to 11th about 15 : 24 : 19 : 17 : 18 : 18 : 21 : 28 : 19 : 25.

Pronotum trapezoidal and convex above, about 1.2 times as wide as long; anterior margin weakly emarginate at middle, lateral sides parallel in basal half; disc with three humps at the centre, their tops bearing pily long black hairs; dorsal transverse carina almost straight, and somewhat angularly connected with each lateral carina, the latter declivous, extending to basal half of side margin. Scutellum covered with white hairs. Elytra strongly convex above, about 1.7 times as long as wide, parallel-sided in basal three-fourths, then narrowed posteriorly; disc with two pairs of humps in subbasal and subapical areas, and with several black and white pily patches on the third intervals; strial punctures deep, their diameter smaller than the widths of intervals. Pygidium transverse, trapezoidal, about 2.0 times as wide as long; disc weakly convex above at the centre.

Prosternum convex above in front of each coxal cavity, the convexity abruptly depressed in posterior margin; mesosternal process rectangular, broad; viewed from side, venter weakly arcuate from 1st to 4th visible sternites, 5th somewhat slanting. Legs relatively short; anterior femur nearly as long as the median which is shorter than the posterior; anterior, median and posterior tibiae subequal in length to one another; anterior tarsus nearly as long as the posterior which is a

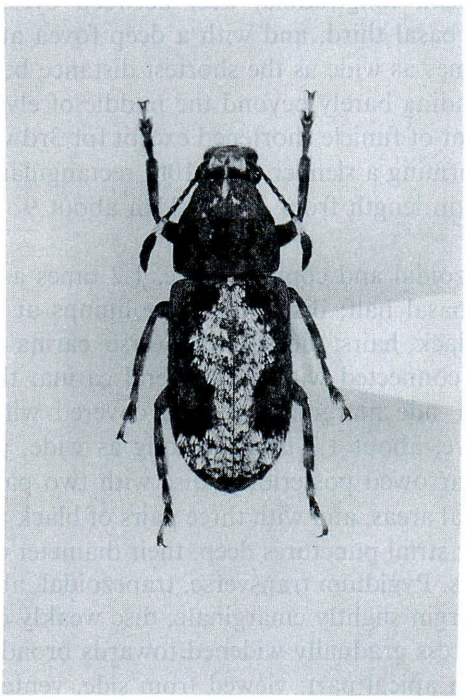

Fig. 1. *Platystomos albisignatus* SENOH, sp. nov., ♀, from N. Thailand.

little shorter than the median.

Male. Unknown.

Holotype: ♀, Doi Suthep, Chiang Mai, N. Thailand, 23–VI–1993, T. SENOH leg. Paratype: ♀, Fang, Chiang Mai, N. Thailand, V–1993. The type series is deposited in the collection of the National Science Museum (Nat. Hist.), Tokyo.

Distribution. North Thailand.

Note. This species can be discriminated from the known species of *Platystomos* by the peculiar markings of the elytra.

Platystomos thainus SENOH, sp. nov.

(Fig. 2)

Length: 8–11 mm (from apical margin of rostrum to apices of elytra).

Male. Body relatively small, about 2.8 times as long as wide, including rostrum. Colour predominantly black, derm of femoral and tibial markings blackish brown to reddish brown. Pubescence relatively dense, brown, white and black; white on dorsal surface of head, 8th and basal third of 9th segments of antennae, and white hairs forming a trifurcate patch on anterior part of pronotum, a pentagram one on basal half of elytra, and a semicircular one on apical third of elytra. The last one not covered with apical part of elytra and pygidium.

Head with a weak longitudinal keel between eyes; rostrum with three longitudinal keels in basal third, and with a deep fovea at base; basal width of rostrum about 1.4 times as wide as the shortest distance between eyes. Antennae relatively short, extending barely beyond the middle of elytra, scape and pedicel globular, each segment of funicle shortened except for 3rd which is a little longer, 9th, 10th and 11th forming a slender club, 10th rectangular, nearly twice as long as wide, proportions in length from 2nd to 11th about 9 : 35 : 24 : 26 : 26 : 27 : 23 : 25 : 18 : 19.

Pronotum trapezoidal and convex above, 1.2 times as wide as long; lateral sides subparallel in basal half; disc with three humps at the centre, their tops bearing pily long black hairs; dorsal transverse carina almost straight, and somewhat angularly connected with each lateral carina, the latter extending to basal seven-tenths of side margin. Scutellum covered with white hairs. Elytra strongly convex above, about 1.7 times as long as wide, parallel-sided in basal three-fourths, then narrowed posteriorly; disc with two pairs of weak humps in subbasal and subapical areas, and with three pairs of black and white pily patches on the third intervals; strial punctures deep, their diameter distinctly smaller than the widths of intervals. Pygidium transverse, trapezoidal, about 1.6 times as wide as long; posterior margin slightly emarginate; disc weakly convex above.

Mesosternal process gradually widened towards broadly rounded apex, and bending backwards in apical part; viewed from side, venter arcuate from 1st to 5th visible sternites. Legs relatively short; anterior femur shorter than the median

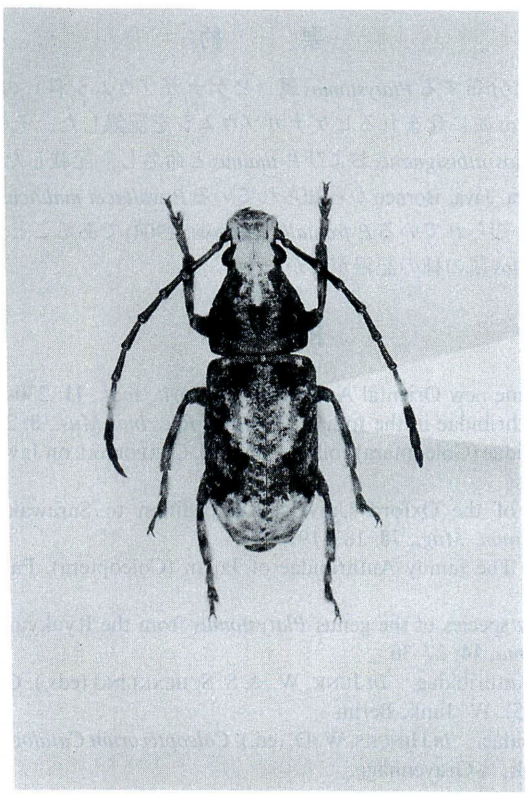

Fig. 2. *Platystomos thainus* SENOH, sp. nov., ♂, from N. Thailand.

which is nearly as long as the posterior; anterior tibia nearly as long as the median which is a little longer than the posterior; anterior, median and posterior tarsi subequal in length to one another.

Female. Antennae short, hardly reaching the basal margin of elytra, 8th covered with white hairs, 9th, 10th and 11th compactly jointed and forming a relatively large club, 9th triangular, 10th about 1.2 times as long as wide, 11th elongate triangular, narrower than 9th.

Holotype: ♂, Wing Pa Pao, Chiang Rai, N. Thailand, 14–IX–1988, K. SAKAI leg. Paratype: ♀, near Meo Village (about 1,400–1,500 m alt.), Chiang Mai, N. Thailand, 21–V–1979, W. SUZUKI leg. The type series is deposited in the collection of the National Science Museum (Nat. Hist.), Tokyo.

Distribution. North Thailand.

Notes. This species is similar to *P. asteromaculatus* (ODA, 1978) known from the Nansei Islands, the southern part of Japan, but can be distinguished from the latter by the difference in the markings of pronotum, elytra and pygidium, the shape of antennal club, the structure of prosternum, and so on.

要　約

妹尾俊男：タイ国に分布する*Platystomos*属（ヒゲナガゾウムシ科）の種．—— タイ国に分布する4種の*Platystomos*属に含まれるヒゲナガゾウムシを記録した．そのうちの2種は新種であったので，*Platystomos albisignatus*および*P. thainus*と命名し，記載した．のこりの2種については，Malakka, Sumatra, Java, Borneoから知られている*P. wallacei malaicus* (JORDAN, 1904)，およびSumatra, Borneoから知られている*P. frontalis* (JORDAN, 1904)であることが判明した．タイ国からはこれまで*Platystomos*属の種の記録がなかった．

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Elytra, Tokyo, **24** (1): 169–172, May 15, 1996

The Anthribid Genus *Phloeopemon* (Coleoptera, Anthribidae) from Thailand[1)]

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Abstract Three species of the anthribid genus *Phloeopemon, P. vitalisi* JORDAN, *P. acuticornis* (FABRICIUS) and *P. continentalis* JORDAN, stat. nov., are newly recorded from Thailand.

Phloeopemon SCHÖNHERR (1839, p. 159) is an isolated genus in the anthribid subfamily Anthribinae, erected for *Anthribus acuticornis* FABRICIUS from Sumatra. It comprises three species, and belongs to the tribe Phloeotragini (cf. MORIMOTO, 1972, p. 40). Up to the present, no species of the genus has been recorded from Thailand.

Through the courtesy of Dr. A. LEWVANICH and Mrs. S. CHUNRAM of the Entomology and Zoology Division, Ministry of Agriculture and Cooperatives, Thailand, Dr. M. TITAYAVAN of the Department of Entomology, Chiang Mai University, and Messrs. H. AKIYAMA, T. SHIMOMURA and M. NISHIMURA, I was able to examine several Thailand specimens of *Phloeopemon vitalisi* JORDAN originally described from Laos and *P. continentalis* JORDAN, stat. nov., from Assam. In this paper, I am going to record them together with specimens of *Phloeopemon* collected by myself in Thailand.

Before going further, I wish to express my sincere gratitude to Professor Y. WATANABE of the Laboratory of Entomology, Tokyo University of Agriculture, and Professor K. MORIMOTO of the Entomological Laboratory, Kyushu University, for their constant guidance and encouragement. I am much indebted to Dr. S.-I. UÉNO of the National Science Museum (Nat. Hist.), Tokyo, for his constant guidance and for kindly reading the original manuscript of the present paper, and to Dr. A. LEWVANICH, Mrs. S. CHUNRAM and Dr. M. TITAYAVAN in Thailand for loan of the valuable specimens used in this study. Deep gratitude is also due to Messrs. H. AKIYAMA, T. SHIMOMURA and M. NISHIMURA for their kindness in providing me with the valuable specimens.

1) This study is supported in part by the Study Leave System for Teachers of Chuo University High Schools.

Phloeopemon vitalisi JORDAN, 1923

(Fig. 1)

Phloeopemon Vitalisi JORDAN, 1923, Fn. ent. Indochine, Saigon, **6**: 72 (4♂♂, 2♀♀, Xien-Khouang, Laos).

Specimens examined. 1♂, Phamuan, Chiang Mai, N. Thailand, 29–IV–1959, JANTHONG leg.; 1♀, Fang, Chiang Mai, N. Thailand, 17–IV–1958, PHON leg.; 1♂, Doi Pa Hompok, Fang, Chiang Mai, N. Thailand, V–1991.

Distribution. North Thailand (new record), Laos.

Phloeopemon acuticornis (FABRICIUS, 1801)

Anthribus acuticorne FABRICIUS, 1801, Syst. Eleuth., **2**: 405 (Sumatra).

Phloeopemon acuticornis: FAHRAEUS, 1839, Gen. Curc., **5**: 160 (Sumatra). —— LACORDAIRE, 1866, Gen. Coléopt., 488 (Sumatra). —— JORDAN, 1897, Annli. Mus. Stor. nat. Genova, **38**: 624 (Sumatra); 1913, Rec. Ind. Mus., **8**: 198 (South India); 1916, Novit. zool., **23**: 359 (Tonkin, Annam). —— WOLFRUM, 1929, Coleopt. Cat., (102): 5 (Sumatra, Borneo, S. India).

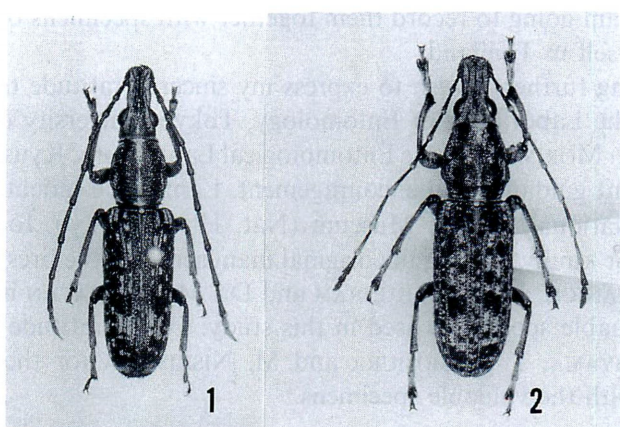
Specimens examined. 1♂, 1♀, Khao Chong N. P., Trang, S. Thailand, 8～12–VI–1983, T. SENOH leg.; 3♂♂, 2♀♀, 3–4 miles from Tapah, Cameron's Highlands, Perak, W. Malaysia, 4～9–VI–1981, T. SENOH leg.

Distribution. South Thailand (new record), West Malaysia (new record), Sumatra, Java, Borneo, South India.

Phloeopemon continentalis JORDAN, 1923, stat. nov.

(Fig. 2)

Phloeopemon acuticornis continentalis JORDAN, 1923 a, Novit. zool., **30**: 167 (Assam, Burma, Tonkin,



Figs. 1–2. —— 1, *Phloeopemon vitalisi* JORDAN, ♂, from N. Thailand; 2, *P. continentalis* JORDAN, ♂, from N. Thailand.

Annam); 1923 b, Fn. ent. Indochine, Saigon, **6**: 72 (Tonkin, Laos, Annam). —— WOLFRUM, 1929, Coleopt. Cat., (102): 5 (Indochina).

Specimens examined. 4♂♂, 4♀♀, Doi Chiang Dao, Chiang Mai, N. Thailand, 25～26–V–1980, T. SENOH leg.; 1♂, Doi Suthep, Chiang Mai, N. Thailand, 3–VI–1980, T. SENOH leg.; 1♀, Doi Suthep, Chiang Mai, N. Thailand, 1–V–1982, T. SHIMOMURA leg.; 1♂, Wieng Ko Sai N. P., Phrae, N. Thailand, 18–V–1985, H. AKIYAMA leg.; 1♀, Doi Phu Kha, Pua, Nan, N. Thailand, V–1991; 1♀, Sam Ngow, Tak, NW. Thailand, 23–VI–1959, CHUA leg.; 1♂, 1♀, Ban Nang Bang, near Sai Yok N. P., Kanchanaburi, W. Thailand, 13–V–1985, H. AKIYAMA leg.; 1♂, Kanchanaburi, W. Thailand, 31–V–1962, AROON leg.; 1♂, Chanthaburi, E. Thailand, 15–V–1961, PHOL leg.; 1♂, 2♀♀, Ban Lamo, Trang, S. Thailand, 15～19–VI–1981, T. SENOH leg.; 1♂, 1♀, Ban Kachong, Trang, S. Thailand, 20–VI–1980, T. SENOH leg.; 1♂, Oudomxay, C. Laos, 9–VI–1994, Y. NISHIYAMA leg.

Distribution. Tonkin, Annam, Laos, Thailand (new record), Burma, Assam.

Notes. This species is very similar to *P. acuticornis* (FABRICIUS), but can be distinguished by the following characteristics: rostrum thicker and shorter, constricted dorso-basally, parallel-sided on antennal cavities; antennae thicker; pronotum widest at about basal fourth, almost rectilinear on lateral sides; anterior tibia curved, and with a large mucro in apical fourth to third in male, and so on.

The distributions of *P. continentalis* and *P. acuticornis* overlap each other in the Province of Trang, the southern part of Thailand.

要　　約

妹尾俊男：タイ国から*Phloeopemon*属の3種の記録．—— これまでタイ国から記録のなかった*Phloeopemon vitalisi* JORDAN, *P. acuticornis* (FABRICIUS) および*P. continentalis* JORDAN, stat. nov. の3種を記録した．また，*Phloeopemon*属は，これまでタイ国からの記録がなかった．

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Elytra, Tokyo, **24** (1): 172, May 15, 1996

Occurrence of *Litocerus dorsalis* (Coleoptera, Anthribidae) in South Thailand

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Litocerus dorsalis was described by JORDAN (1894, p. 611) on the basis of the specimens collected from Perak, West Malaysia. There has been no other records than the original description, which was made more than one hundred years ago.

In 1993, I made several long collecting trips to the southern part of Thailand and obtained five specimens of this species in the Province of Nakhon Si Thammarat. I am going to record this species as being new to the fauna of Thailand. The collecting data of the specimens are as follows:

1♂, Nam Tok Pliw, near Thung Song, Nakhon Si Thammarat, 13～15–VIII–1993, T. SENOH leg.; 1♂, ditto, 14–IX–1993, T. SENOH leg.; 2♂♂, 1♀, ditto, 12～13–XII–1993, T. SENOH leg.

Distribution. South Thailand (new record), West Malaysia.

I wish to express my hearty thanks to Dr. S.-I. UÉNO of the National Science Museum (Nat. Hist.), Tokyo, for kindly reading the original manuscript of this brief paper.

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Elytra, Tokyo, **24** (1): 173, May 15, 1996

The Specific Name of the *Cheirotonus* Species (Coleoptera, Scarabaeidae, Euchirinae) from the Malay Peninsula

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The *Cheirotonus* species from the Malay Peninsula belongs to the "*parrii** group", which consists of *parrii**, *jansoni*, *jambar* and the Malayan species.

KRIESCHE (1919) described *C. peracanus* on a female specimen from Peraku, Malakka, but it was not listed in OHAUS' (1918, 1934) catalogues. Perhaps OHAUS was not aware of KRISCHE's description.

Recently, MINET (1981) described *C. arnaudi* from Tanah Rata, Malaysia, and YOUNG (1989) did not list *C. peracanus* in his revisional work, either. According to the original description, *C. arnaudi* is apparently a junior synonym of *C. peracanus*, as shown below.

Cheirotonus peracanus KRISCHE, 1919, Ent. Mitt., **8**, p. 77 (type locality: Peraku, Malakka).
= *Cheirotonus arnaudi* MINET, 1981, Nouv. Rev. Ent., **11**, p. 290 (type locality: Tanah Rata, Malaysia). *Syn. nov.*

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* In GRAY's original description, the name of the North Indian species of the genus *Cheirotonus* was spelled *parrii*, not *parryi*.

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A New Record of *Mecocerina rhanis* (Coleoptera, Anthribidae) from South Thailand

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Mecocerina rhanis was described by JORDAN (1911, p. 112) on the basis of a male specimen collected from Kuching, Sarawak, the Island of Borneo. After that, the subspecies *M. rhanis gracilis* was described by JORDAN (1916, p. 161) on the basis of only a female specimen from Goenoeng Soesoeroeh near Soekaboemi, the Island of Java. It was distinguished from the nominotypical subspecies by difference in the size of the black elytral spots. However, after my examination of fifteen Thai specimens of this species, it has become clear that the black elytral spots are variable in size.

This species has not been recorded from Thailand up to the present.

Mecocerina rhanis JORDAN, 1911

Mecocerina rhanis JORDAN, 1911, Novit. zool., **18**: 112 (1♂, Sarawak); 1936, ibid., **39**: 313 (1♂, W. Malaysia).

Mecocerina rhanis gracilis JORDAN, 1916, Tydschr. Ent., **59**: 161 (1♀, Java). [*Syn. nov.*]

Specimens examined. 1♀, Mt. Khao Phanom, Krabi, S. Thailand, 5–XII–1993, T. SENOH leg.; 3♂♂, ditto, 5～6–II–1994, T. SENOH leg.; 1♂, Nam Tok Pliw, Thung Song, Nakhon Si Thammarat, S. Thailand, 13～15–VIII–1993, T. SENOH leg.; 2♂♂, ditto, 16～17–IX–1993, T. SENOH leg.; 1♀, ditto, 14–XII–1993, T. SENOH leg.; 1♀, Nam Tok Yong, Thung Song, Nakhon Si Thammarat, S. Thailand, 11–VIII–1993, T. SENOH leg.; 1♂, Nam Tok Phrai Sawan, Trang, S. Thailand, 10–XII–1993, T. SENOH leg.; 1♂, 3♀♀, Nam Tok Sairung, Trang, S. Thailand, 9～11–XII–1993, T. SENOH leg.; 1♀, Khao Chong N.P., Trang, S. Thailand, 7–VIII–1993, T. SENOH leg.

Distribution. South Thailand (new record), West Malaysia, Java, Borneo.

Finally, I wish to thank Dr. S.-I. UÉNO of the National Science Museum (Nat. Hist.), Tokyo, for kindly reading the original manuscript of the present short paper.

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